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ORIGINAL ARTICLES.

TALKS WITH YOUNG MEN ON THE SEXUAL FUNCTION.

BY WALTER F. MORGAN, M. D., LEAVENWORTH, KAN.

PART II.

I AM sometimes asked by young men what effect a varicocele has upon the sexual function. Aside from its mental and moral effect, as a rule, I think it has no marked influence. Young men and maidens are naturally very sensitive, especially so regarding the sexual organs. Reasoning *a priori* it seems improbable that a varicocele could exert a very marked influence upon the elaboration of the spermatic fluid. The clinical thermometer shows no increase of temperature on the affected side, as we might have inferred from the fact that in this disease we have simply an excess in the part of venous blood. Prof. Gross, in his able work upon surgery, states, amongst other indications for the radical operation in the treatment of varicocele: "When the patient's mind is so much affected as to render him unfit for active exertion." The dragging and neuralgic pains may also require the radical treatment. Any cause which determines an excess of blood to the part should be avoided; for example, constipation of the bowels, intemperance, sexual excess, and, in some cases, horseback exercise. As palliative treatment, we have applications of cold and hot water, and, above all, a good, firm and comfortable bandage, when properly applied, will often reduce the enlargement one-half in a continuous use of a year or more. The bandage should not be worn during sleeping hours. The bandages usually sold in the shops are not firm enough.

A little ingenuity and experience, with the right materials—shoemaker's webbing and cotton flannel and strong safety-pins—will enable the wearer to construct for himself a really serviceable and comfortable article. After retiring, if the first sleep is disturbed by erections, get out of bed, take hold of the bedstead or any convenient handhold, and go through a series of rapid alternate sittings upon the feet and risings to the erect posture (like the toy "jumping jack"), aiding the lower by the upper extremities, thus strengthening the muscles of back and limbs, while diverting the blood and nervous force from the sexual organs, and bringing sound and refreshing sleep. Regarding the effect of food and drink upon the sexual function much might be said; but the main point is for each person to study and know himself in this respect. We do not fight fire by

heaping on it more fuel; we cannot conquer the fires of lust while our bodies lack vigorous exercise and are goaded on by stimulating food and drink. We often seem compelled in this life to choose the lesser of two evils. So it is with the various athletic games—football, baseball, boat-rowing, etc. While they are often carried to the excess which results in serious wounds and even in death, still they sometimes divert the superabundance of youthful vim from more dangerous and disastrous channels. Let us be moderate in all things.

As at our first meeting you requested quotations from some of the eminent authors who favor the general conclusions at which we seem to have arrived, I now invite your questions, which I will answer so far as I am able to do, and then proceed with the quotations:

First Hearer: Doctor, I inferred from remarks made at our first quiz that in one respect your views differ somewhat from those expressed in "Carpenter's Physiology" regarding abuse of the sexual organs; that facts obtained in a study of comparative physiology have led you to believe that masturbation is usually no more harmful than an illicit gratification of desire between the sexes, that, strictly speaking, you consider the other practice no more "unnatural" than the other, and that in general they equally abrogate the primary function of the sexual organs, viz., the procreation of the species.

Doctor: Yes, you have in the main correctly stated my views on this point. Some years ago, similar views to those I hold on this matter were expressed in the *New York Medical Record*. The motive in either case is not love, but lust, and the results are substantially the same. Lust gratified between the sexes requires for the act the demoralization of *two* individuals, whereas in the former case only one is directly injured, and this fact alone, without considering the infectious sexual diseases, may perhaps counterbalance any advantage which one practice may be supposed to possess over the other. Dr. Van Buren states that some of the most aggravated cases of spermatorrhœa were once to be seen among the sons of Southern slave holders, who were allowed free intercourse with negro women.

Doctor, what is the usual effect of coition when the woman is suffering from either the menstrual flow or from leucorrhœa?

Doctor: In my experience such instances are not common, but some of the most obdurate cases of urethritis simulating true gonorrhœa, which I have ever treated, were in men who had compelled their wives to co-habit while suffering under these disabilities. Even in prostitutes the voice of Nature cries out against intercourse under such circumstances; but the legal wives of

brutal men are less fortunate, and are compelled to submit, to the injury of both themselves and their misguided husbands.

Fourth Hearer: Doctor, are there authentic instances of gonorrhœa arising from intercourse between healthy men and women?

Doctor: Ricord gives facetious directions for the infallible production of all the usual symptoms of acute gonorrhœa, as a consequence of such intercourse. Both the man and woman are recommended to prepare themselves by free eating and drinking, with plenty of dancing to heat the blood, and then, upon retiring to bed, the man must be extremely valiant in vigorously performing and frequently repeating the sexual act.

Second Hearer: Doctor, what is your opinion of the plan recommended by some authors for the prevention of conception by limiting sexual indulgence to a certain portion of the inter-menstrual period?

Doctor: In so far as it imposes a partial self-restraint, it is much better than none at all. However, besides being liable to fail in its immediate object, its remote effects cannot fail in being injurious, as it is merely an ameliorated form of sensuality. Moreover, it denies the act to the woman at the very time when by Nature she only or chiefly desires it.

Third Hearer: Doctor, do you think a man who can control himself perfectly for a fortnight, may continue to do so indefinitely, and that the longer he practices self-control the easier for him it will become?

Doctor: Experience gives a strongly affirmative answer to both of your questions. Now for our quotations, and in order that you may obtain a general notion of the physiology of our subject, we will read Dr. Wm. B. Carpenter, who states: "The essential peculiarity of the * * * spermatic fluid consists in the presence of a large number of very minute bodies, the spermatazoa, which from their usually remaining in active motion for some time after they have quitted the living organism, have been erroneously considered as proper animalcules. The human spermatozoon consists of a little oval flattened 'body' between the 1-600 and 1-800 of a line in length, from which proceeds a long filiform 'tail,' gradually tapering to the finest point, of 1-50, or, at most, 1-40 of a line in length. The whole is perfectly transparent, and nothing that can be termed 'structure' can be satisfactorily determined within it. Its movements are principally executed by the tail, which has a kind of vibratile, undulating motion; they may continue for many hours after the emission of the fluid, and they are not checked by the admixture with other secretions, such as the urine and the prostatic fluid. Thus, in cases of nocturnal emission, the spermatazoa may be found to live for many days. Their presence may be readily detected by an observer familiar with their appearance, and furnished with a microscope of sufficient power, even when they have long ceased to move, and are broken into fragments; and the physician and the medical jurist will frequently derive much assistance from an examination of this kind. Thus cases are of

no uncommon occurrence, especially among those who have been too much addicted to sexual intercourse, in whom seminal emissions take place unconsciously and frequently and produce great general derangement of health, and the true nature of the complaint is obscure until the fact has been detected by ocular demonstration. Again, in charges of rape, in which evidence of actual emission is required by a microscopical examination of the stiffened spots left on the linen, we seldom fail of obtaining proof, if the act has been completed. In such cases, however, we must not expect to meet with more than fragments of spermatazoa; but these are so unlike everything else, that little doubt need be entertained regarding them. It has been proposed to employ the same test in judicial inquiries respecting doubtful cases of death by suspension, seminal emissions not being infrequent results of this kind of violence, but there are many obvious objections which would prevent much confidence being placed in it.

* * * That the spermatazoa are the essential element of the spermatic fluid may be reasonably inferred from several considerations. There are some cases in which the *liquor seminis* is altogether absent, so that they constitute the sole element of the semen; whilst on the other hand they are never wanting in the semen of animals capable of procreation, but are absent or imperfectly developed in the semen of hybrids. Moreover, it may be considered as certain that the absolute contact of the spermatazoa with the ovum [of the female] is requisite for fecundation, whilst on the other hand, if the spermatazoa be carefully removed from the *liquor seminis* by filtration the latter is entirely destitute of fertilizing power. Hence the presence of the *liquor seminis* must be considered as merely incidental, and as answering some secondary purpose, either in the development or in the conveyance of the spermatazoa. * * * The power of procreation does not usually exist in the human male before the age of fourteen or sixteen years, and it may be considered probable that no spermatazoa are produced until that period, although a fluid is secreted by the testes. * * * The procreative power may last, if not abused, during a very prolonged period. Undoubted instances of virility at the age of more than one hundred years are on record, but in these cases the general bodily vigor was preserved in a remarkable degree. The ordinary rule seems to be that sexual power is not retained by the male to any considerable amount after the age of sixty to sixty-five years. To the use of the sexual organs for the continuance of his race, man is prompted by a powerful instinctive desire which he shares with the lower animals. This instinct, like other propensities, is excited by sensations, and these may either originate in the sexual organs themselves, or may be excited through the organs of special sense. Thus in man it is most powerfully aroused by impressions conveyed through the sight and touch; but in many other animals the auditory and olfactory organs convey impressions which have an equal power, and it is not improbable

that in certain morbidly excited states of feeling, the same may be the case with ourselves. Localized sensations have also a very powerful effect in exciting sexual desire, as must have been within the experience of almost every one. The fact is most remarkable, however, in case of satyriasis, which disease is generally found to be connected with some obvious cause of irritation of the generative system, such as pruritus, active congestion, etc. * * * The instinct, when once aroused, (even though very obscurely felt) acts upon the mental faculties and moral feelings, and then becomes the source, although almost unconsciously so to the individual, of the tendency to form that kind of attachment toward one of the opposite sex which is known as *love*. This tendency cannot be regarded as a simple passion or emotion, since it is the result of the combined operations of reason, the imagination and the moral feelings, and it is in this engraftment (so to speak) of the psychical attachment upon the mere corporeal instinct, that a difference exists between the sexual relations of man and those of the lower animals. In proportion as the human being makes the temporary gratification of the sexual appetite the chief object, and overlooks the happiness arising from spiritual communion, which is not only purer but more permanent, and of which a renewal may be anticipated in another world, does he degrade himself to a level with the brutes. Yet how lamentably frequent is this degradation! * * * The high degree of nervous excitement which the act of coition involves, produces a subsequent depression to a corresponding amount; and the too frequent repetition of it is productive of consequences very injurious to the general health. * * * The secretion of the seminal fluid, like that of the other secretions, being very much under the control of the nervous system, will be increased by the continual direction of the mind towards objects which awaken the sexual propensity, and thus, if a frequent discharge be occasioned, whether by natural or unnatural excitement, a much larger quantity will altogether be produced, although the amount emitted at each period will be less, and its due perfection will not be attained, the fluid under such circumstances being found to contain an unduly large proportion of immature seminal cells. The formation of the secretion seems of itself to be a much greater tax upon the corporeal than might have been supposed *a priori*, and it is a well known fact that the highest degree of bodily vigor is inconsistent with more than a very moderate indulgence in sexual intercourse, whilst nothing is more certain to reduce the power of both body and mind than excess in this respect. These principles, which are of great importance in the regulation of health, are but expressions of the general law (which prevails equally in the vegetable and in the animal world) that the development of the individual and the reproduction of the species stand in an inverse ratio to each other. * * * The odoriferous secretion of the skin, which is much more powerful in some individuals than in others, is increased under the influence of

certain mental emotions (as anger, fear or bashfulness) and commonly also by sexual desire. The sexual secretions themselves are strongly influenced by the condition of the mind. When it is frequently and strongly directed towards objects of passion, these secretions are increased in amount to a degree which may cause them to be a very serious drain on the powers of the system. On the other hand, the active employment of the mental and bodily powers on other objects has a tendency to render less active, or even to check altogether the processes by which they are elaborated. This is a simple physiological fact, but of high moral application. The author would say to those of his younger readers who urge the wants of Nature as an excuse for the illicit gratification of the sexual passion, try the effects of close mental application to some of those ennobling pursuits to which your profession introduces you, in combination with vigorous bodily exercise, before you assert that the appetite is unstrainable, and act upon that assertion. * * * There seems to be something in the training of young men for the medical profession, which encourages in them a laxity of thought and expression on these matters that generally ends in a laxity of principle and of action. It might have been expected that those who are continually witnessing the melancholy consequences of a violation of the Divine law in this particular would be the last to break it themselves; but this, unfortunately, is far from being the case. The author regrets being obliged further to remark that some works which have issued from the medical press, contain much that is calculated to excite rather than to repress the tendency, and that the advice sometimes given by practitioners to their patients is immoral as well as unscientific. When Sophocles, having become somewhat advanced in years, was asked if he still enjoyed the pleasures of love, he replied: "May the gods preserve me! I have quitted them as willingly as I would have quitted a savage and cruel master."

Dr. William R. Gowers, a specialist of London, Eng., says: "Do we do all we can—and our profession gives us power that no other has—do we do all we can to promote that perfect chastity which alone can save from this [*i. e.*, infectious disease] and from that which is worse? The opinions that on pseudo-physiological grounds suggest or permit unchastity, are absolutely false. Trace them to their ultimate basis and they are groundless. They rest only on sensory illusions, and there are no liars like our own sensations. Rather, I should say they rest on misinterpretations always biased and often deliberate. With all the force that any knowledge I possess can give and with any authority I may have, I assert—as a result of long observation and consideration of facts of every kind—that no man was ever the slightest degree better for incontinence; that for it every man must be the worse morally, and that most are worse physically; and in no small number the result is, and ever will be, utter physical shipwreck on one of the many rocks, sharp, jagged-edged, or on one of the many banks of festering slime that are about his course, and which no care

can possibly avoid. And I am further sure that no man was ever anything but the better for perfect continence. My warning is: Let us beware lest we give even a silent sanction to that against which, I am sure, on even the lowest grounds we can take, we should resolutely set our face and raise our voice."

The following is from R. W. Emerson: "The world globes itself in a drop of dew. The microscope cannot find the animalcule that is less perfect for being little. Eyes, ears, taste, smell, motion, resistance, appetite and organs of reproduction that take hold on eternity—all find room to consist in the small creature. So do we put our life into every act. The true doctrine of omnipresence is, that God reappears with all his parts in every moss and cobweb. The value of the universe contrives to throw itself into every point. If the good is there, so is the evil; if the affinity, so the repulsion; if the force, so the limitation. Thus is the universe alive. All things are moral. That soul which within us is a sentiment, outside of us is law. We feel its inspiration; out there in history we can see its fatal strength. It is in the world and the world was made by it. Justice is not postponed. A perfect equity adjusts its balance in all parts of life. *Οἱ κέρβοι Διὸς αἰεὶ ἐνέκρουται*—The dice of God are always loaded."

* * * Every secret is told, every crime is punished, every virtue rewarded, every wrong redressed, in silence and certainty. What we call retribution is the universal necessity by which the whole appears wherever a part appears.

* * * Every act rewards itself, or in other words, integrates itself in a two-fold manner; first, in the thing, or in real nature; and secondly, in the circumstance, or in apparent nature. Men call the circumstance the retribution. The causal retribution is in the thing, and is seen by the soul. The retribution in the circumstance is seen by the understanding; it is inseparable from the thing, but is often spread over a long time, and so does not become distinct until after many years. The specific stripes may follow late after the offence, but they follow because they accompany it. Crime and punishment grow out of one stem. Punishment is a fruit that unexpected ripens in the flower of pleasure which concealed it. Cause and effect, means and ends, seed and fruit, cannot be severed, for the effect already blooms in the cause, the end pre-exists in the means, the fruit in the seed. Whilst the world would be whole and refuses to be parted, we seek to act partially, to sunder, to appropriate, for example—to gratify the senses, we sever the pleasure of the senses from the needs of character. The ingenuity of man has always been dedicated to the solution of one problem—how to detach the sensual sweet, the sensual strong, the sensual bright, etc., from the moral sweet, the moral deep, the moral fair; that is, again, to contrive to cut clean off this upper surface so thin as to leave it bottomless; to get a *one* end without *another* end. The soul says, eat; the body would feast. The soul says the man and woman shall be one flesh and one soul; the body would join the flesh only. The soul says have dominion over all things to the end of

Nature. The body would have power over things to its own ends.

"The soul strives a main to live and work through all things. It would be the only fact. All things shall be added unto it—power, pleasure, knowledge, beauty. The particular man aims to be somebody; to set up for himself; to truck and higgler for a private good and in particulars; to ride that he may ride; to dress that he may be dressed; to eat that he may eat; to govern that he may be seen. Men seek to be great; they would have offices, wealth, power and fame. They think to be great is to possess one side of Nature, —the sweet without the other side—the bitter. This dividing and detaching is steadily counteracted. Up to this day, it must be owned, no projector has had the smallest success. The parted water reunites behind the hand. Pleasure is taken out of the pleasant things, profit out of profitable things, power out of strong things, as soon as we seek to separate them from the whole. We can no more halve things and get the sensual good by itself than we can get an inside that shall have no outside, or a light without a shadow. Drive out Nature with a fork, she comes running back.

"Life invests itself with inevitable conditions which the unwise seek to dodge, which one and another brags that he does not know; that they do not touch him; but the brag is on his lips, the conditions are in his soul. If he escapes them in one part they attack him in another more vital part. If he escapes them in form and in appearance it is because he has resisted his life and fled from himself, and the retribution is so much death. So signal is the failure of all attempts to make this separation of the good from the lax that the experiment would not be tried, since to try is to be mad, but for the circumstance that when the disease began in the will of rebellion and separation, the intellect is at once infected, so that the man ceases to see God whole in each object, but is able to see the sensual allurements of an object and not see the sensual hurt; he sees the mermaid's head, but not the dragon's tail, and thinks he can cut off that which he would have from that which he would not have. 'How secret art thou who dwellest in the highest heavens in silence, O thou only great God, sprinkling with unwearied providence certain penal blindnesses upon such as have unbridled desires!'"*

In our next talk we will consider more especially the therapeutics of some of the sexual diseases.

A medical journal says that probably the oldest physician in active practice in America is Dr. C. F. H. Wilgohs, of Doylestown, O., who is still practising at the age of ninety-three. He has the appearance of a man of sixty, reads the newspapers without the aid of glasses, and eats three hearty meals each day. He is a habitual smoker, but never used tobacco until he was fifty years old. He attributes his longevity to heredity and to careful regularity in all his habits or life. He says that for 300 years the male members of his family who have died natural deaths all lived to be 100 or more. His grandfather cradled wheat two days in succession at the age of 106, and died from overheating himself.

* St. Augustine's Confessions.

HEART STIMULANTS.*

[T is a great lesson, and one which I learnt very early in my medical career, that it is possible, with a very small amount of valvular integrity, to pass through a long life of labor and usefulness.

This, as you know, is owing to what is called compensatory hypertrophy. And almost all your practical skill in treating a disease of the heart rests upon practical skill in deciding not whether this valve or whether that valve is diseased, but whether the increased power of the heart has or has not kept pace with the increased work required of the heart.

And here I want to say a word in regard to this question of diagnosis. There are some who think that when the aortic valve is diseased you should never give heart tonics or heart stimulants; that digitalis is not indicated. Not so, gentlemen. The aortic valve is no different in its functions and its relations to drugs than the mitral valve. It so chances that the mitral disease is produced during youth and the aortic disease comes on slowly during age, and so in the one case the heart is more prone to be unable to adjust itself to the new conditions, and you get cardiac weakness.

It is not a question whether this valve be diseased or whether that valve be diseased, but it is a question of the relation between the work and power. But no diagnosis of valvular disease is of any use save one that aids you in the greater diagnosis—therapeutic. We want, then, always, in every case of heart disease, from the very beginning to guard against this failure of development of compensatory hypertrophy; but before taking up the subject of drugs and their uses in failing heart let me say a word to you in regard to failure of heart power. Where does the strain come, or where is the lack apparent? When the heart fails the blood fails to be in the aorta and its tributary vessels, and when the aorta fails and its tributaries are empty the veins are full, and consequently you may take it for a sign of failing heart that there is over-venous repletion of the skin, congestion of the lungs and liver and œdema of the extremities.

Now I want to call attention to this fact, that it is the liver among all organs, next to the lungs, at least, that feels the excess of blood in the venous system. It is the engorgement of the portal circulation that is present almost always in every case of heart disease. And it is largely for this reason that mercurials are of the value that they are in heart disease. The fiftieth of a grain, or the sixteenth, or even the hundredth of a grain, of corrosive sublimate, given with the tincture of the chloride of iron, will sometimes effect almost a revolution; aiding your true heart tonics in the most remarkable manner; aiding, so to speak, in the digestion and absorption of the medicine. Many a time digitalis and those drugs lie in the

alimentary canal, and you wonder why it is you do not get the effect

Now, about certain other influences before I take up drug treatment of heart disease. And especially do I want to force upon your attention the necessity of rest. We fail to remember that. But you know there has grown up a wide school of therapeutists in Germany who teach that we are to cure heart disease by cardiac gymnastics, climbing mountains, etc. Gentlemen, the heart, you know, is an organ that never rests under any circumstances, and do you believe it is common-sense teaching that you can take an organ that has had no rest from the time it came into the world, and build it up by piling onto the load which Nature has put upon it? Not so. Did you ever notice the difference between what we call a fat American or Englishman and a fat German of the better class? The American or Englishman could walk eighteen hours through the snow climbing mountains. His paunch might be larger than necessary for anybody to carry, but his arms and legs are iron. But take the German, he is all fat and beer. It is not the extra work put upon the heart that cures, but it is the extra work put upon the muscles of the body that cures them. It is because his is not a true case of heart overburdened, except by medicines.

Another set of cases are cured in this way. These are the cases with a heart working irregularly and doing evil to all organs continually, because the blood is loaded with uric acid derivatives or uric acid-like compounds.

But you take the American with the bad heart and put him up the mountains, and you ought to put the lid on the coffin so he could carry it up and bury himself.

Leaving these means, which seem to me of great practical importance, I come now to the drugs we have to use in cases of failing heart. I have never seen any good result obtained from any cardiac drug whatever that could not be obtained from nitro-glycerine, strophanthus and digitalis; and I never have any satisfaction whatever in the treatment of real, downright heart trouble with any other remedy than these three.

First, nitro-glycerine. Bear this in mind above all other things that nitro-glycerine lays itself aside from the two other cardiacs in the fact that it dilates the arterioles and lowers arterial pressure. More than that—nitro-glycerine is a substance which probably has a powerful momentary stimulant influence on the heart muscle. If, however, you overstep the dose line in the slightest degree, that stimulant action changes immediately into one of extreme depression. Kill the animal with nitro-glycerine and its heart is relaxed as a wet paper bag; kill the animal with strophanthus or digitalis and its heart is spasmodically contracted.

Then, again, remember that nitro-glycerine, like prussic acid, acts only for a few minutes. Therefore, if you are going to use nitro-glycerine at all, use it in small doses, and at very short intervals. It is only useful as a momentary pick-me-up to the heart. It is only useful in the crisis of the attack, and especially if the attack takes on the

*From an address by H. C. Wood, M. D., Professor of Therapeutics, University of Pennsylvania (*Cleveland Med. Gazette*.)

form of angina pectoris. How it acts I do not know. Very possibly it may be by relaxing spasm rather than by stimulating the heart.

Strophanthus is a muscle poison. It only acts upon the heart as it acts upon the other muscles, but it so happens that the heart muscle is very susceptible to its influence, more so than the voluntary muscles; and so we are able to get the maximum stimulant effect on the heart before we get it on the other muscles. It is a drug, therefore, that acts directly as a stimulant to the heart muscle, increasing the susceptibility and causing it to react more readily than normal. But there is no reason to think that, like digitalis, it acts further as a tonic. Then, again, the muscle of the arteries is acted upon by strophanthus, and so contracts the arteries. It increases arterial pressure, it empties the veins and fills the arteries by stimulating the heart. It differs, I may say, in its action from digitalis in being more distinctly diuretic; it is much more prompt than digitalis, acting at once; it is much less permanent than digitalis—all practical points.

And now I come to the drug to which I want especially to call your attention, viz., digitalis: for there are certain things about its action and its use which, it seems to me, are not thoroughly understood by many of the profession.

In the first place, digitalis in proper doses always elevates the arterial pressure. How? It does it in the first place by contracting the arterioles. It narrows the blood paths, it lessens the amount of blood space to be filled. It does this in a two-fold way: By stimulating the vaso-motor center in the medulla, and by acting on the arterioles themselves. Take a terrapin, cut out its nervous system, leave its heart intact, or cut out its heart, then put your fluid under pressure into the arterial system and have it come out from the venous system. Add a little digitalis and it almost arrests the flow. It contracts the capillaries in a two-fold manner. But it acts upon the heart more powerfully. Every one knows the full, strong beat you get from the drug. How? Especially do not forget that it stimulates the pneumogastric nerves as well as the heart muscle. It lengthens the interval between the beats. When the beat comes it is a great, mighty throb of blood that strikes your finger as a blow from the hammer of Thor himself. It is the stimulant action of digitalis. But I want you to understand digitalis is more than a stimulant in this case, it is very life to the heart. You take a heart which is beating 110 to 120 times a minute. The veins are everywhere empty, the aorta is empty. The diastole has not been long enough for the heart to expand and receive the blood. The heart is continually irritated by impulses coming up from every part of the body crying "give us more blood." Now, you give that heart digitalis; you quiet it. You take off its nervousness, you get the long diastole, you get the powerful systole; so there comes a great driving wave of blood through the arteries. Recall the coronary artery, when the little trickle of blood comes out. At the very time when the heart is being overworked and over worried it is starving. But you give

digitalis, and when the great wave comes out in the aorta it swells it out, it fills the coronary artery, it goes into every part of the heart, it brings sustenance and food. The old effete material that has been clogging the heart is swept away by the powerful systolic influence. And so digitalis acts as a heart tonic.

Here I would call your attention to a point in physiology. The experiments of Gaskell proved that there are two distinct alternating periods in the heart life—a time of functional activity and structural downwear, and a time of functional rest and structural upbuilding. During diastole of the heart there is no functional activity—there is relaxation. During systole there is functional activity. During systole this functional activity is accompanied by destruction of tissue. During the interval of diastole, functional rest, every force in the heart is given to repairing the ravages of function, and there is restoration and upbuilding. Now, it is the pneumogastric nerve that occasions the inhibition or stopping of functional activity, in order that the structure of the heart, which has been worn, may be repaired. My own belief is that every portion of the human body has behind it this principle. The spinal cord has its inhibitory centers. Every nerve cell has above it a higher nerve cell than inhibits it. The pneumogastric grasps it firmly and says to it: "Let the workmen build up the ravages in the walls."

What is digitalis? Digitalis is the one drug we know of that has the distinct absolute power of stimulating to a point of intense activity the inhibitory nerve. Expose a frog's heart, give it digitalis, and you will see the strange fight for mastery between the irritated pneumogastric nerve and the irritated heart muscle. Sometimes the digitalis arrests the heart in diastole. It never does if you cut the pneumogastric nerve. In the body sometimes the pneumogastric nerve gains control over systole, and you get arrest in dilatation. Now don't you see how digitalis acts in this case; not simply as a stimulant, but it acts by bringing food to the heart at the time of its starvation and overwork? It acts also by squeezing or clearing out of the heart the effete matters which have been lying there. But especially does it stimulate the pneumogastric nerve, this inhibitory nerve, this trophic nerve, enabling it not only to quiet the heart in long diastoles, but to make over, upbuild the heart.

We have a case of heart disease every now and then in which a man labors, has had no rest and no treatment—seems to be in the last stages of heart disease—in whom a short course of digitalis brings not only immediate relief, but seems to lift the whole man up to a higher plane. It is because the digitalis has really helped the trophic nerve to use the food which has been given to the heart by the use of digitalis, to the up-building of the structure which was almost destroyed.

Here let me say a word in regard to the employment of this drug in acute endocarditis, acute heart disease. Early in the case digitalis is very rarely indicated. It is more apt to do harm than good. The heart is already in a state of irritation.

There are some cases of endocarditis—septic or malignant endocarditis—in which it does not make much difference what you give. But in ordinary rheumatic endocarditis digitalis does harm. The heart is not weak, but over-irritated. Usually tincture of aconite and similar drugs are what you want to try. But when the storm has gone by, and you have nothing but the work to do, then remember that the only salvation for the stricken child is the upbuilding of that heart into a great powerful organ that shall enable it to overcome the leak that has been left in the valve. There is no rag that we can stick or push into the broken space. There must be increase of power, and so, under these circumstances, so soon as the acute disease has passed it is absolutely important to begin the use of digitalis in small doses, continually given, with great watchfulness. Recollect here, as in other cases, that when you give digitalis you give a drug which has a permanent influence. The moment you get the slightest effect that moment you stop the drug, for you know that effect will probably last hours, perchance days.

Passing by the ordinary use of digitalis, let me call your attention to the use of it in large doses. And here I beg of you not to misunderstand me; I do not mean to say that the doses of digitalis I am going to speak of are to be used in the ordinary cases of heart disease. But there come times in the life of almost every case of heart disease when the heart fails to respond at all to the moderate dose of digitalis, and when the large dose of digitalis will have a most pronounced and beneficial effect upon it.

It happened two or three months ago that I was sent for by Dr. ——— to see a case in consultation. The man had one pleura two-thirds full of water. His pulse was, as far as you could count it, 160 to 170 a minute; it was a mere broken, confused jumble of pulse beats. The man had been sick eight weeks without conscious sleep, sitting up struggling for breath.

"Doctor," my colleague said, "I sent for you to back me up in tapping this pleura."

"I don't think that pleura ought to be tapped. I will back you up in it provided you tell the wife of the man that he is liable to die during the operation. Have you tried digitalis?" I said to the wife: "The doctor thinks your husband ought to be tapped, but I think there is a very good chance of his dying just on the spot."

His wife said, then better let him die without operative procedure.

"Now," I said, "Let me try digitalis. Give that man 40 drops of digitalis now (6 o'clock), give him 40 drops at 8 o'clock, 40 at 10 o'clock, and then hold off."

I went there the next morning. The old man had slept soundly the whole night. Had begun to pass water freely (had had nearly completed suppression) and his pulse was down below 100, perfectly regular. The result was that the man came down to see me in my office not many weeks afterwards, and has been going about apparently in good health ever since; of course, with a broken, diseased heart.

There are cases in which you must keep these

doses of digitalis up. Years ago, when I had worked out these thoughts to my satisfaction, I was sent for by an old German doctor to see a patient; in fact, to take charge of her while he went on his vacation. The lady was sitting up in bed or on a chair. This old German was a very plain-spoken man.

"Doctor," he said, "I want you to take charge of Sarah there. I have given her digitalis, 10 drops three times a day, but she doesn't improve." Then turning to the patient, he continued, "see here, Sarah, what the devil is the use of your sitting there for weeks? This fellow says he will either put you in the graveyard or get you downstairs. You had better be in the graveyard than sitting here, so you had better let him try."

She said: "Very well. I would a good deal rather be in the graveyard."

I gave her about two teaspoonfuls of tincture of digitalis a day. She was around in two or three weeks afterward.

Not long after that I had another case—a man from somewhere in the West. He had been taken acutely ill, or rather, chronic disease had blossomed out in full while he was attending to some business in the East. He had been under care for three or four weeks. I put him on enormous doses of digitalis, and the result was that in one or two weeks he was able to go home.

Now, gentlemen, I mention these cases to you not simply as examples of the result that can be obtained by large doses of digitalis, but to point out to you a further lesson.

The ending of the old gentleman has not come yet. But it so happened one day in the course of some months after the woman that I put upon digitalis had been going about attending to her household duties, that she went to market. Returning with a light basket in her hand, she fell dead over her own lintel. And the banker from the West went back to his office and gathered together the gold, but it so happened one day that, as he was reaching forward to put his clutch upon the yellow coin, he fell dead across his counter.

Some would say it was digitalis that killed them; but there can be no truth in it. It is not digitalis that arrests the heart. It is the effect of digitalis to quiet the nervous condition of the heart, to feed up the heart as far as may be, to keep it going as long as it can, until, at last, there comes a time when there is not one grain of power left in the heart. When the power had all gone out of it absolutely it suddenly laid down and died. When you venture to give these large doses of digitalis in the treatment of cases of heart failure, tell the patient, or at least the friends of the patient, that this thing will come. It is better to live months, and perhaps, a year or two, and drop dead in the harness.

I have never yet seen but one case hurt by the use of digitalis, and that was a case of absolutely mistaken diagnosis, where it was not heart failure, but was neurasthenia from gastric catarrh.

A few words in regard to the so-called cumulative action of digitalis. This action comes on

at certain times: First place, when it fails to act upon the kidneys; second place, when it is already in the body. You have a case of dropsy; you tap; reduce the pressure. Instantly the blood vessels take up the serum; that serum is loaded with digitalis. Then you have digitalis poisoning. Remember, it is not the drug that is in the body, but the drug that is in the blood that affects the body. When you have tapped and taken up that blood into the veins you get digitalis action. A practical point always: When you expect to tap a man suffering from heart disease or from any form of dropsy in which you have been giving digitalis, cease your digitalis for a length of time before you tap him.

Years ago, I noted one class of cases that nearly drove me to the lunatic asylum. Cases of mitral valve insufficiency; cases in which the heart seemed to be in the last stages of weakness; cases where I said to myself, this man will be picked right up by digitalis, but when I gave the digitalis there came increased heart panic and a horror that instantly demanded the withdrawal of the drug. I was sure that I was right in my diagnosis that the heart was weak and failing. I was sure that I was right in my physiology that digitalis was a heart tonic and stimulant. But when I put the two things together they did not work. These cases rapidly went from bad to worse. At length I worked out the problem. They were all of them cases of mitral insufficiency, and they were really cases of excessively weakened auricle; an auricle that was toned down and thinned out until it was little more than the thickness of paper. Now, under the influence of digitalis, there came back a reflex wave through the valve, and that met the blood pouring in from the pulmonary veins. This thin, paper-like auricle could not stand the double pressure. It was auricular weakness that did it. It could not stand the strain of the blood pouring in and the blood pushing back through the insufficient mitral valve by strengthened systole. Whenever you get that condition, you get a case that nothing can be done for. It is death, and death very near at hand.

One of our professors taught that digitalis is a useful remedy in treatment of aneurism. Gentlemen, it is death to aneurism. The reason these surgeons do not kill the case of aneurism is because they do not use digitalis in large enough doses to have any effect. Now you can see why digitalis is the most dangerous in a case of aneurism. You give a certain amount of strychnine or a certain amount of belladonna and you get 20 per cent of increase of arterial pressure. Take belladonna, the heart under belladonna beats 110 or 120 times a minute and sends out a spoonful of blood. What does digitalis do? It puts up your arterial pressure 10 per cent. But it does more than this. It makes a long diastole. It makes a great wave of blood; not a little tiny thread but a great mass of blood rushing with full force down the arteries, coming into the chamber enlarged by atheromatous degeneration, stretching and tearing everything before it. It is the immense distension un-

der the influence of digitalis which makes it dangerous in these cases of aneurism. This is not theory. I learned these lessons practically. Some years ago, before I had worked out all these things to my own thinking, I was sent for to see a man at the hospital. He had a pulse you could scarcely feel; temperature, four or five degrees below normal. Gave digitalis freely. The next day I went from my residence to the hospital. The man was sitting up enjoying himself, talking and laughing. I put my hand on his pulse, and I got the tremendous big strokes of digitalis. Suddenly the man sprang with a great cry up into the air, and there came a crimson flood from the mouth and nose, and he dropped back dead. That man had an aortic aneurism. We had ruptured it with our digitalis. At the autopsy, the aneurism was found torn right across, and, therefore, gentlemen, when you have an aneurism to deal with don't use digitalis.

Suppose you have a case of advanced pneumonia. How do these patients die? Shock, paralysis, exhaustion or arrest of power of the right heart. What is the reason? Because the right heart is heated almost to death by the fever. You give digitalis. It stimulates that right heart. It does not cure the pneumonia, but it keeps the right heart up to its work, and, by and by, you cure the pneumonia.

In failing, insufficient hearts the only drugs I have found to be of value are strychnine and digitalis. Digitalis should be given hypodermically. More than this, I have found in the lower animals that the lowered pressure under chloroform or ether is brought up almost instantly by digitalis injected into the veins. More than this, I have found that digitalis given before the anæsthetic has a remarkable power in steadying the heart.

Whenever you have reason, in any case, to especially fear cardiac depression from the use of the anæsthetic, precede the anæsthetic by your digitalis; and precede it long enough that the heart shall be under the influence of that digitalis when the anæsthetic is given.

And with digitalis always use strychnine. It affects the respiratory function probably more than it does the cardiac function, but it certainly has some power in backing up the action of digitalis on the heart.

And then there is another drug which is of equal value with strychnine, and which can be associated with strychnine, and that is cocaine. It acts upon the circulation about as strychnine. But if you have pushed the strychnine to the limit of safety, you can raise the pressure, without producing convulsion, by giving cocaine and strychnine together. You will find in all cases of pneumonia, especially the adynamic type, and in advanced pneumonia, where you want to sustain the respiration as well as the circulation, that this combination of strychnine and cocaine is of the utmost value.

Harvard University is to have a department of comparative pathology added to the medical school, a sum of \$100,000 having been left for the endowment of the chair.

THERAPEUTICS OF MASSAGE AND MEDICO-GYMNASTICS.

BY OTTO SCHERINI, D. G.,

Masseur and Medico-Gymnast, of Stockholm, Sweden.

MUCH has been written on massage and medico-gymnastics, but in nearly every instance there seems to be a lack of practical therapeutics. This article is intended to give the medical profession a few practical points.

The word massage comes from the Greek verb "masso," I knead or handle, or from the Arabic "mass," to press slowly or lightly. The grips generally used in massage are: Massage-up, massage-spiral, kneading, roiling, stroking, slapping, percussion, beating, pressing, shaking, vibration.

Some of the movements of medico-gymnastics are: Bending, stretching, lifting, spreading, closing, rotation, circumduction.

Massage may be considered as a branch of medico-gymnastics. It is applied from the periphery towards the center; thus following the venous circulation.

It is by no means a new method or remedy. Old Chinese literature intimates that it was used 3000 years B. C. It is used now in different parts of the uncivilized world in a less scientific form, as rubbing, pinching, pounding, etc.

Massage is a natural way of subduing pain. For instance, you hurt yourself anywhere, and you are sure to take hold of or on the injured part, and will do so involuntarily.

Massage has its progression. When starting to treat a patient it ought to be lightly given in the beginning, and gradually increased after some treatments, as to strength and length of time. Generally a massage treatment ought not to last over half an hour. Sometimes it is considered better to make the treatment still shorter, but twice a day.

Vigorous massage makes the tissues harder, light massage makes them looser; lengthy massage makes parts smaller, and proper time massage makes them larger. The duration of the time of application must be regulated by the physical constitution of the individual, by sex, by age, and by surrounding circumstances, and depends upon the good judgment of the operator.

Massage, especially in connection with curative exercises, will relax a stiff joint and strengthen a weak one. The old Romans used to let slaves, too old for service, undergo some kind of massage treatment, to make them look healthier and stronger, in order to be able to sell them with more gain.

Massage and rubbing are used a great deal in training for athletic feats and sporting events. On convalescents massage is used with great success to make them gain flesh and strength more rapidly. Adipose tissue can be lessened, and, in short, massage is used with great advantage, and effects and produces various results.

In giving massage use as large a surface of the hands as possible. The patient is generally more

accessible in a half-reclining position, with muscles fully relaxed, and limbs partially flexed. The pressure should be put into the upward stroke, coming downward only slightly touching the skin. This gives the patient a soothing feeling. The right hand of the operator is used with better advantage on any right part of the patient, and the same rule holds good regarding the left. In case of tenderness of the skin it is proper to use a little vaseline, but one who cannot give massage is sure to always use vaseline or some other fatty substance, otherwise he will inflame or injure the skin. It is a good way to hide ignorance.

There are other names for certain styles of grips, viz.: Effleurage, petrisage, massage à friction and tapotement. These names are, however, out of date, and besides they are not practical.

Curative exercises act as an excellent support of massage, and will in many cases assist in effecting a more speedy cure. Passive movements will prepare the body for active ones.

Massage on the naked skin is not always necessary, and when given in combination with active movements, it is even very seldom done. In large massage institutes, where there may be as many as fifty or more persons treated at the same time, it would not be agreeable for all those persons to undress, and it could hardly be expected that each patient could be furnished with a separate room. The Gymnastic Central Institute in Stockholm, Sweden, has got the name of being the first and the leading medico-gymnastic institute now in existence. The majority of treatments are given without having the patients remove their clothing. In local troubles, however, it is preferable to apply the massage on the naked skin, the operator depending a great deal upon his feeling (touch). It would be impossible to feel or detect small exudations, etc. It is also difficult to use the proper pressure, when manipulating through the clothes.

Three properties should be well developed in an able masseur, viz.: Elasticity, perseverance, and bodily strength and health.

Light massage produces more or less irritation of the skin, contracting the smaller vessels, and thus increasing the speed of the venous circulation. Deep massage affects a diffusion of the exudations, promotes the growth of new granulations and prevents cellulitis, etc. Slapping, percussion and beating act chiefly on the nerves in producing a molecular change in the nerve substance. Massage over the colon will increase the peristaltic action, and several neuralgic troubles are greatly benefited by vibrating pressure on nerves.

It is a good thing to prescribe some active gymnastic exercises for the patient to go through with, after the treatments are discontinued.

Other names are frequently used for medico-gymnastics, viz.: Swedish movements, remedial gymnastics, curative exercises, etc. The name Swedish movement is misleading. In treating diseases the same schemes of movements cannot always be used, and, besides, all of the civilized nations have been, and are, inventing different medico-gymnastic movements. Nearly every case demands individual treatment. As an illus-

tration, it may be mentioned that in the Gymnastic Central Institute, in Stockholm, a record is kept of all movements. Over 16,000 different movements were used from 1834 to 1885, and every few weeks cases come for treatment that call for movements which were never seen nor thought of before.

A normal blood circulation can be controlled by proper and timely movements and manipulations. The ability of the nerve centers to furnish motive power depends upon their receiving their supply of nutriment from the blood. The waste is carried off by the venous blood, and material for new formation is furnished by the arterial blood; therefore, if the circulation can be controlled, the muscle contraction and expansion accomplished, the nutrition and absorption can also be controlled. The blood circulation is greatly aided by the activity of the body, and nutrition and absorption are materially increased. Absorption being partly a result of a normal venous circulation, it must follow that if the speed is diminished the absorption is diminished, and congestion will be the result. When the absorption is restored to its normal activity, it is only a matter of a short period when the consequences of congestion will be fully removed. Restored circulation in congested veins promotes general circulation.

In circumduction of the feet, circulation is greatly increased, but actively done it would very soon cause exhaustion, which proves that an immense amount of nerve force is used up. If the operator scientifically twists the feet, not only the same but even better results are obtained without using up any nerve force.

The amount of chyle can be materially increased by manipulations which bring it in contact with the intestinal surface. The functions of the pancreas and liver will be aided by a normal blood circulation through them. All the functions of excretion will be promoted, pulmonary action increased, capillary circulation quickened, thus bringing the blood in closer connection with the pores, and thereby improving exhalation. Congestion of the kidneys can be prevented or removed. If the peristaltic motions are nearly or altogether exhausted, defecation can be produced, and by continuing the exhausted parts will soon become active.

An able physician's diagnosis reveals the kind of treatment which should be applied, and the effect of the treatment tells the experienced operator what combinations of movements and manipulations should be used.

Most people seem to have the idea that the medico-gymnastic treatment is only good to develop muscles, and muscles can certainly be developed, but that shows plainly that nutrition and absorption can be increased, and the muscles are used as tools in aiding the blood circulation in other parts. To sum up in few words the whole physiological action of massage, it may be said that its primary effects are upon the great nerve forces of the body, beginning peripherally and extending to the nerve centers, to the great ganglionic or sympathetic system, which is above

all the vaso-motor or blood-compelling power, and it is in this way that massage applied externally sets in motion the various functional operations of nerves, blood-vessels—arterial and venous—capillary vessels, lymphatics and lacteals, indeed, every form of circulation in the body.

DISEASES OF THE INTELLECTUAL FACULTIES AND CERTAIN FORMS OF INSANITY, CAUSED BY CONGENITAL DEFORMITIES OF THE GENITO-URINARY ORGANS IN BOTH SEXES.

BY J. A. CARMICHAEL, M. D., NEW YORK.

IT has long been a well-known fact among physio-pathologists that there are individuals of both sexes, neuropathic from birth, who are the subjects of congenital malformation or of some unnatural condition of the genital or urinary organs, which predisposes them to sudden or gradual attacks of a psychic character, or finally of a form of dementia that may be characterized as sympathetic in quality, and by reason of which, at the moment of seizure, and involuntarily, they may commit some act of folly, or a terrible crime, or end life by suicide. There is a most intimate relation between the genito-urinary organs and the great nervous centers. A lesion, be it ever so slight, of these organs, may provoke in certain neuropathic individuals a change of character or some psychic trouble, or even real insanity in all its forms. A gentle, kindly and courteous nature may become repellant, coarse, proud and intractable, and finally, melancholic, hypochondriacal and maniacal. It often happens that a congenital malformation or disease of the genital system—the womb, ovaries, clitoris, vagina, etc.—may make women brutal, hysterical, unmanageable or furious, and thus be the prominent cause of divorce. It has been demonstrated that these irregularities of the intellectual faculties may come from an imperfect development of the genital system of women, and especially of the clitoris and its adhesion by one or both of its extremities to the labia minora of the vulva. These adhesions and the accumulation of a whitish discharge—smegma—irritate the peripheric nerves of the vulva, the erection of the clitoris and its complete development are prevented, and then appear all the hysterical phenomena, the brutalities, and finally a change in the entire character of women. All of these untoward and distressing symptoms can easily be allayed and arrested by the breaking up of the adhesions and setting the clitoris free.

Genital malformations of the male sex may also produce intellectual irregularities. This is particularly the case with the cryptorchids or eunuchs or hypospadiacs, especially those of the scrotal or perineo-scrotal form. The epispadiacs with vesical extrophy, etc., and the occurrence of mental disturbance, usually takes place when puberty is reached, and for the first time there comes the comprehension of the physical deformity. Many

of these cases terminate in a profound and permanent melancholy, or by a more or less imperfect development of the intellectual faculties. Not only the physical deformities, but other different affections of the genito-urinary system, may produce nervous or psychic troubles in individuals, of neuropathic origin. For example, the orchio-epididymetisms of blennorrhagic nature, traumatic, tumors or tuberculosis of the testicles, atrophy, ablation of one or both testicles, because in effect these secretory organs contribute much to maintain the equilibrium between the intellectual and corporeal faculties. The Romans, recognizing the importance of these organs, at the historical epoch of the dictator Scylla, punished severely those who undertook the removal of the testicles, because, they said when a man lost his testicles, his health as well as his intellectual powers were disturbed, believing moreover that the physiological functional perfection of the testicles gave to man his perfect corporeal and psychic health, and fitted him to appear in the courts as a witness for those who were deprived of those organs, anorchids and eunuchs. The importance of the testicles is shown in those who are deprived of them congenitally—eunuchs—and, more rarely, those who have small testicles—microrchids. They are most generally of feeble constitution, thin, pale, cachectic, timid and fearful. Byzantine historiographers, wishing to demonstrate the imperfection of the intellectual faculties of eunuchs, characterized them as incapable of corporeal or moral power, inefficient in all generous enterprises, effeminate, and in addition, misanthropes, calumniators, sycophants, full of infamous and traitorous instincts; they have betrayed their own nation, and provoked national disasters—for example, Eutropius and other eunuchs.

To comprehend more clearly the importance of these secreting organs, and their intimate relations with the central nervous system, the following may be mentioned. It may be said that Origene, an ecclesiastical father and most devoted and vigorous defender of orthodoxy, wishing to follow the precepts of "Holy Writ," which declared "If thine eye offend thee, pluck it out, and cast it from thee"—and understanding from that the violent passions of the genital organs, and the desire for lascivious pleasures, removed his testicles. Before their removal, as above stated, he was one of the most powerful and invincible defenders of the orthodox church, and had written many works in its defense and protection. After their removal, his writings and teachings were full of contradictions and heresies. The ancients too, recognizing the importance of the action of these organs upon the organism, and the tendency of their exciting powers for sensual enjoyments, caused the testicles of animals to be put among the number of aphrodisiacs.

It was perhaps through the inspiration of this knowledge of the ancients, and based upon the importance of the marvelous influences upon the organism in general, and the central nervous system particularly, of these secreting organs, and that to them is due the equilibrium between the

corporeal and intellectual, that the celebrated Brown-Sequard invented his famous lymph. Again, the importance of the genital organs, or rather, the very intimate relation that exists between these organs and the encephalon, is readily seen in the parallel development of the two systems. For example, the microencephale or the microcephale, which are cryptorchids or anorchids, or completely deprived of testicles. The monorchids, or those in which there is marked testicular atrophy, and the hypospadiac are imbecile, because of the incomplete development of the brain; slight psychic troubles, with maniacal phenomena—Dr. S. Chromatianos—have occurred after puncture of a hydrocele, accompanied with very marked testicular atrophy, and after a phenic injection into the sac; this may have been provoked by a sudden contraction of the cremaster muscle. In another instance, after an operation for chronic hydrocele with atrophy of the testicle, the patient was suddenly seized with nervous agitation, impairment of the intellectual faculties, lasting for a week, with maniacal phenomena, involuntary laughter and weeping, all disappearing on completion of the cure. Hysterical, neurasthenic, psychic and moral troubles, are also produced by different affections of the prostate, viz.: senile hypertrophy, acute and chronic inflammations. In cases of chronic prostatitis of blennorrhagic origin, or consecutive upon aphrodisiac abuse, patients sometimes fall into a condition of permanent insomnia, melancholy or hypochondriasis, which may be cured by a few applications of the nitrate of silver. In another case of prostatic hypertrophy, with all the other consequences of the disease, chronic cystitis, etc., the patient became subject to continuous melancholy, had no desire to see his child, to whom he was much attached, nor his wife, nor parents.

After irrigation of the bladder with corrosive sublimate, 1 to 3,000, boric acid, etc., with a general tonic treatment, and after instructing him how to use the sound twice a day, his melancholy left him, with complete restoration of his health, corporeal and psychic. Castration has been proposed for prostatic hypertrophy, and the operation of Ismardi practised to determine its effect upon the psychic and bodily health. Instances have been reported by Canellis, Papadakis, Cambains and others, of psychic troubles caused by varicocele, monorchidia, cryptorchidia, hypospadias of perineo-scrotal form, etc., malformations of the penis and bladder that may cause perversions of the intellectual faculties and sympathetic mania. From the above the following conclusions are legitimate: First: That in the forms of sympathetic mania there are no organic lesions. Second: That the mild forms of mania present themselves in neuropathic individuals with congenital malformations, or affections of the genital or urinary systems. Third: That sympathetic forms of mania may be ameliorated or cured completely by an operation or by treatment addressed to the genito-urinary system itself. Fourth: That many individuals in whom there are congenital malformations, or acute or chronic

diseases of the genito-urinary system, may involuntarily commit crime or suicide because the equilibrium between the intellectual and corporeal faculties is broken, or because their moral nature has become disordered. For these reasons penal justice should see to it that such persons should not be punished unjustly and sometimes even cruelly. Before deciding upon the punishment of a criminal or an individual accused of some legal infraction, a minute medico-legal examination should be made of the genito-urinary system and of the neuropathic antecedents, and in many instances judicial opinion would be changed and modified as to the punishment to be inflicted upon the accused.

"SOME DUAL PROPERTIES IN MEDICINE."

BY BEN. H. BRODNAX, M. D., BRODNAX, LA.

HAVING occasion some time since to answer a sort of "slash" (by a friend of mine) at Homœopathy, I asked him a few questions. Among them was whether he knew really what were the effects in full of any one medicine contained in our pharmacopœia. *Carbolic acid*, for instance, will destroy healthy cuticle, the same as nitric acid. It benumbs, not causes, pain, like the other. But if put on a raw, burned or scalded surface, or a knife cut, it instantly—yes, instantly—when coated over the raw surface, covers it with an impermeable surface. Pain instantly ceases, and a new skin forms under it within comparatively a few hours. Did this seem natural? Yet it was not the less a fact. Add to this that it splits up in the body, and acts as heavily on the kidneys as on the stomach and intestines.

Castor oil in full dose purges, with griping and intestinal pains; yet to drops, if administered every half hour, will in a very few doses check a diarrhœa, with no tenesmus.

Turpentine in full doses, or in large ones, will produce inflammation, purgation, tenesmus of the bladder, increased flow of urine, strangury, while in 2 to 5 drop doses none of these symptoms appear, but in some cases, the majority, the bowels are checked, soothed and healed, the bladder is cooled, kidneys relieved, and the irritated urethra cured.

Iodide of potassa in full doses, pushed to tolerance of stomach, will produce great systemic disturbance, causing most distressing pains and producing some most frightful skin eruptions. In small doses it corrects all these where they have existed prior to administration of the drug.

Tartar emetic, said to have been, in old times, "a very much abused and too much used" drug, and now ignominiously kicked out entirely by the "regulars," will in $\frac{3}{4}$ to 1 grain doses "puke and purge," while in 1-12 to 1-16 grain doses, every 15 or 20 minutes, either dry or in solution, will very quickly (sometimes the first dose) quiet distressing nausea and stop persistent vomiting from irritability. These are a few facts which are hard to account for.

Nitrate of silver, a most powerful caustic to the skin and mucous surfaces in any amount, will, if given $\frac{1}{4}$ to $\frac{1}{2}$ grain by mouth in solution, heal inflammation of the mouth, throat, and almost instantly cure an inflammation of the stomach, producing in a very few minutes the most agreeable and refreshing sensation of coolness where an instant before pain, thirst, nausea all combined had created a little hell in itself. Is it not a little curious and worth inquiring into the "why" of such a miraculous change?

Ipecac, the "devil's broth" with children (and grown up children, too) vomits and purges in full doses in solution, causes an irritation of the mucous tracts that produces the most distressing diarrhœa. If made into a bolus of 10 grains will, it is said, check vomiting and diarrhœa, but in 1-8 to 1-16 grain every half hour, in solution or powder, check pain, purging and fever. "Pure contrariety," you say. Well, for all that, it needs only a little rubbing the fur the right way with any medicine to make it purr.

Chloral hydrate, as an hypnotic, acts best on the nerves through the blood; as a sedative by the same; caustic in proportion to the strength, as an injection with boric acid into the bladder in case of cystitis; as a gargle and to swallow in sore throat, applied by means of a pledget of cotton saturated solution to ulcers in throat or vagina, has no equal. With equal parts of carbolic acid, say 10 grains each to 2 or 3 ounces water as an application to skin in urticaria; or diluted to 4 ounces to infant skins suffering with hives, measles, scarlet fever, etc., soothes and stops the unpleasant itching.

Belladonna dilates the blood vessels in full doses, checks hemorrhages, acts on the sphincters so as to relax; at the same time prevents undue engorgement of the capillaries in small doses.

Morphine is in some a sedative, even in full doses. In 1-12 grain every half hour it has not so much of the stimulating effect. In some cases it acts as an intense stimulant, only showing its sedative power when it has worn out the patient. As a sedative it is unsatisfactory every way, not only in its present effects, but the sequelæ are worse, leaving the patient worse off than before, taking in every way, plus the craving for more. It is a safe thing, every way, to combine morphine with chloral hydrate or soda bromide to counteract the stimulant stage.

Calomel.—Ten one-tenth grain granules, half hourly, will often act more powerfully and surely than 5 or 10 grains given at one time, also is free of the griping and nausea; acts more constitutionally. Combined with 1-10 grain podophyllin the effect is more pronounced. Also it is noticeable that somehow it splits up in the 1-10 grain doses, and acts with as much force on the kidneys as on the bowels. It seems to me somewhat strange that calomel should, in acting in this way through the blood, not produce salivation while acting on the kidneys; while, if it does not, in some scorbutics, act that way, it produces blood poisoning, as shown in salivation. It has been a curious study to me, this splitting up and double action of some drugs.

Santonin acts powerfully on the intestines by expelling lumbricoides; at the same time as effectually on the kidneys, and quiets the urinary organs. Is a safe drug in 3 to 5 grain doses in dysmenorrhœa, thrice daily. Is a pleasant remedy in cystitis from this latter quality. I had an experience recently with a very dignified old lady. Prescribed 5 grains in capsule, t.i.d., for three days, with compound cathartic on three nights. She very forcibly called my attention to the "extraordinary color of her urine," which had been passed without the use of a catheter. At same time: "Doctor, I passed about a dozen worms which looked to be as old as I am, and I believe they were." Some of them were over a foot long. I remarked that "I had suspected something of the kind." To this day I think the old lady looks a little cross-eyed at me over her spectacles. So, for all that, she is in better health, and says she must be getting to be a juvenile again.

Sulphate copper—caustic in any strength—astrigent and sedative. In 1-50 grain, soothing and healing to the mucous surfaces, so far every way than copper arsenite, is a disinfectant and antiseptic. In eczema, in strength of 5 to 8 grains to ounce of water, kept applied, will cure severe cases. No better colyrium in eye troubles; or in granular conjunctivitis is a cure if used by rubbing with the crystal twice daily, and dropping in a little cocaine to ease the smarting.

Epsom salts purges and gripes in full doses, while in 5 and 10 grains every half hour or hour it quiets diarrhœa and intestinal pain, and does the purging equally well when that is desired.

Glonoïn (nitro-glycerine), is a heart tonic and stimulant. In rheumatic pains and other neuralgias, acts promptly as a hypnotic in doses of 1-75 to 1-100 grain, half hourly and hourly.

Quinine arsenite, in 1-67 grain doses every hour for five to eight hours, will produce quininism almost as quick and effective as full doses of 3 to 5 grains hourly of the sulphate alone. Given in 1-30th grain will act better than quinine alone in full dose.

Phytolacca decandra, fluid extract, will, in full doses, sometimes produce excessive vomiting; in $\frac{1}{4}$ and 1 drop doses is a sedative, excellent in fever and in inflammatory enlargements of the glands. Topically, in infusion in mastitis, full strength, applied to stings of bees and yellow-jackets (according to Brother J. J. Waller, in *Med. Summary*) almost instant relief. By the way, talking of stings, I was at a house recently when one of the small boys came running in, howling at the top of his lungs, and frantic with pain from a sting of a hornet. I suggested to his mother to dip a rag in "chamber lye" (urine) and bind it to his hand. In a few minutes the pain ceased, he stopped his racket and began to take in the surroundings.

Strychnine, in toxic doses, is highly excitant of the nerves, causing death by over stimulation, etc. In small doses, 1-67 to 1-134 is a splendid nerve sedative. In combination with arsenic no better drug can be found in neurasthenia and perverted

nerve action. Its effect was recently very noticeable in a case of "sweet taste to everything" in an invalid lady; the unpleasant symptoms disappearing rapidly and a return of normal appetite in a very few days.

Acetanilide in some cases produces slight cyanosis, if given in full 8 or 10 grain doses; in some idiosyncracies are more pronounced; given preceding a chill, or after it has come on, 5 or six grains will counteract the cyanosis, equalize the circulation, and a sweat follows with amelioration, or cessation, of all unpleasant symptoms. In full 5-grain doses the immediate effect is a pleasant warm glow, as if some stimulant had been taken, followed by pleasant sleep if one lies down. Now if acetanilide is a heart depressant, why this glow of warmth, equalization of circulation, and restful feeling which follows? Even when fatigued almost to insomnia, 5 grains "sets you up" so that restful sleep follows, the same as a glass of wine would produce, and if tired the less amount of 2 or 3 grains acts to rest one and refresh in every way. Is it a heart depressant? I say no. In a case recently, in the Northwest, $\frac{1}{4}$ of an ounce, 120 grains, was taken in six hours. The sixteen hours following, during which the cyanosed individual was recovering, the pulse and respiration were normal. Dr. Cyrus Edson praises ammonol as a stimulant, and also recommends it in the treatment of malarial fever, in place of quinine. In the June issue of the *Charlotte Medical Journal* Dr. Eccles says ammonol is composed of acetanilide, 6 parts; bi-carb. soda, 3 parts; bi-carb. ammonium, $1\frac{1}{2}$ parts. Five to fifteen grains, as to age, is the dose recommended by Dr. Edson, which is about 3 to 10 grains, as to age, of the acetanilide.

There is considerable "duality" respecting this drug, not only in its effects, but in the opinions expressed relative to the "whys" of its action.

CHRONIC ULCER OF THE LEG.

BY W. F. MORGAN, M. D., LEAVENWORTH, KAN.

IN this journal for December, 1895, I reported "two cases of traumatism," one of which resulted in an ulcer of the leg, which was cured after resisting various therapeutic measures tried by various physicians, for about thirty-three years.

As nearly every physician in active practice probably has on his hands one or more of these cases, usually regarded as among the *opprobria medicarum*, I wish now to report another, which, like the one above referred to, is intended chiefly for the encouragement of the young or the inexperienced practitioner. November 31, 1895, I was called in consultation by Dr. C. M. Moater, of this city, to see Mrs. B., æt. sixty-eight, with the following history and present status: The sore, located upon lower third or right fibular region, at the time of Dr. M's. first visit to the case,

was about 2 x 4 inches in size. At date it was of circular form, one inch in diameter, still painful and suppurating, and had resisted for about six months all efforts to heal it.

Now, the problem was to lift this patient out of a condition which had persisted without appreciable change for the past six months, and for this purpose I advised elevating the limb to an angle of thirty-five to forty degrees and the constant irrigation of the ulcer with water at a temperature of about 100 to 110° Fahr. At the end of six weeks of this treatment we still found very slight decrease in the size of the sore, although it presented so healthy an appearance that I applied a skin-graft of a size to completely cover it, which adhered promptly and firmly. Zinc sulph., iodoform, boracic ac. and ichtryol were used locally. With the usual fluctuations characterizing the course of chronic disease, we had the great satisfaction at the end of about five weeks to find the ulcer completely healed for the first time in twenty-six years, and our patient declared herself to be more comfortable than she had before been during all this long period. At the time the attending physician first saw Mrs. B. both her legs were so greatly enlarged that he was disposed to accept the diagnosis of elephantiasis previously made by one of the former numerous medical attendants, and as there seems a strong tendency toward a relapse it may possibly be either true or pseudo-elephantiasis, as we find that a relapse can only be avoided by constant and judicious care. This patient has had the too common experience of those afflicted with an obstinate disease. She soon fell into the hands of the peripatetic professional sharks, who made such heavy drafts upon her credulity and her purse that both were finally exhausted. When these sufferers with ulcers which have existed for a generation, more or less, are also afflicted with superstition, ignorance and *dirt* we have a combination of obstacles very difficult, and in private practice often impossible to overcome, but when, as in the case of Mrs. B., the patient is tractable and sufficiently intelligent, the disease will generally yield to faithful and scientific treatment.

METHOD OF CLOSING ABDOMINAL INCISION.*

By TURNER ANDERSON, M. D., LOUISVILLE, KY.

I will show you two patients I recently operated upon by abdominal section, to illustrate the method of closing the abdominal incision by means of buried silver wire sutures. I have been told that this method has not been practiced by any other surgeon in Louisville, though it has gained some popularity in the East, notably in the service of Prof. Howard A. Kelly, in the Johns Hopkins Hospital, Baltimore. This method of closing the abdominal incision was explained to me while East some months since, and at that time I made the remark that I believed it to be decidedly unsurgical; that the wire would act as a foreign body and be the source of subsequent trouble. Since having tried this means of closing the abdomen, however, it has proven so satisfactory, that I thought the matter of sufficient interest to bring before the Society. I have used silver wire in several cases, two of which I

shall exhibit, and the results have been very satisfactory in contrast with some other cases where I have had to remove silkworm gut sutures afterwards, etc.

The first patient is twenty-eight years of age, mother of two children. Eleven months ago she first noticed an enlargement in the right side of the abdomen. She applied to me for treatment two months ago and I diagnosed the condition as ovarian cystoma, and operated upon her a few days later, removing a suppurating ovarian cystoma, which contained about a pint of pus. The abdomen was closed with five buried sutures of silver wire; union took place without suppuration and she has had absolutely no trouble. She does not complain of any sticking sensation, or any pain from presence of the wire. The skin was closed by the sub-cutaneous or Halstead method. The peritoneum was first stitched with catgut, following that the fascia sutured with silver wire, lastly the skin sutured sub-dermally with catgut. This wire, of course, remains in the tissues permanently, and when healing is complete the wound is perfectly smooth. In this case, as you will observe, only the faintest line can be seen at the site of the incision.

As already indicated, when I first saw this method of closing the abdomen it seemed to me unscientific and unsurgical, and I very promptly said so. I gave as my reason that we were compelled to depend upon vital and not mechanical processes for the healing of wounds, and that it did seem to me healing dependent upon mechanical process would not be satisfactory. I was told, however, that the method had stood the test of more than two years, Dr. Halstead having employed the method for this length of time, closing the incision by the buried silver wire suture by the ordinary terraced method. No trouble had followed his operations when this method was employed.

Case II.—The second case was also operated upon for ovarian cyst, which was much larger than in the previous case. The incision was longer, and six sutures were used in closing it. This case, as you see, is equally as perfect as the first, the very slightest evidence remaining of the wound in the abdomen.

DISCUSSION.

Dr. A. M. Vance: It is too early to say positively what will be the outcome of the cases shown by Dr. Anderson, but certainly the cicatrix seems to be firm, and the scar is as pretty as I have ever seen. I have never closed an abdomen by the method he has described; in fact, my attempts to bury silver wire in the tissues have entirely failed. I usually use wire in suturing bone. I have adopted one set method of closing the abdomen, and have had only one ventral hernia resulting from abdominal section. That was a very small hernia occurring at the lower angle of the wound. The operation was for an ovarian cyst, and the case was reported to this Society at the time.

So far as my experience goes, I believe Dr. Anderson's first impression of the silver wire suture in abdominal work—that a mechanical apparatus left *in situ* was a false idea, as it would certainly cut the tissues and come out—is about the correct one. With a small incision and a thin abdominal wall, I think silkworm gut sutures passed directly through answer very well. I do not believe the centipede-like scar makes much difference unless it takes on keloid action, which sometimes happens.

Dr. J. G. Cecil: I have had no experience with the silver wire suture in abdominal work. It seems to me, however, that the appearance and the condition of the cicatrices is the best argument that can be offered in favor of the suture. I have never been at all attracted to the silver wire suture, from reading the accounts and what I have seen of it. It has never occurred to me that it was necessary to introduce a permanent suture. Other methods have been so satisfactory that I could not see the necessity of burying an insoluble material in closing the abdominal wound. However, if they all turn out as well as the cases Dr. Anderson has shown us, it certainly must be a good suture.

Dr. L. S. McMurtry: One thing we must all concede, in considering a question like that of closing the abdominal incision, and that is that a variety of methods may obtain equally good results. One surgeon may adopt methods

*Reported to the Louisville Surgical Society. Stenographically reported for this journal by C. C. Mapes.

different from another to secure the same end; one may have greater dexterity and work with more facility by a preferred method. There are a great many different ways of closing the abdominal incision. The method adopted by Dr. Anderson is that practiced by Dr. Kelly and others. Edebohl's method preceded Kelly's method, differing only in using silkworm gut, where Kelly uses silver wire; both are after the method of Marcy. Marcy's plan was to suture in layers with buried absorbable animal tendon. Edebohl and Kelly do the same, with the substitution of non-absorbable material in the aponeuroses. The method which is more generally adopted is the procedure practiced by Tait, Bantock, Price and most abdominal surgeons, which is to use a box stitch, described by Craig Smith; passing a silkworm gut suture close to the margin of the skin, carrying it down from the point of introduction until it reaches the middle of the muscular layer, bringing it out near the peritoneal margin from this point, so as to make the strongest tension on the muscular layer. After union the suture is entirely removed, leaving nothing behind.

The method of closing the abdominal incision that has been described by Dr. Anderson to-night is an excellent procedure, but I do not believe it is the best method, and Dr. Anderson himself has stated the strongest objection to it, viz.: the union of several tissues should be vital, not mechanical. I saw in Atlanta during the holidays a silver wire suture that Holmes had removed from the cervix of a woman, which had been put there by Marion Sims, who had overlooked it; twenty years later it gave trouble and had to be removed. The greatest objection I see to any method of terraced suturing is that it prolongs the operation. Take the expert operator and he may be able to put in several layers of stitches with a great deal more facility than another operator who is not so expert; but take the average operator and the best method is the one which he can perform the quickest. The method of through suturing with silkworm gut is the most rapid; it forms a perfect support to the tissues until union takes place; it makes the strongest pressure over the muscular layer, which is an important point in the prevention of hernia; and lastly, after the wound has united the suture is removed and you leave nothing behind. We often have operations in abdominal surgery where the patient's life depends upon abbreviating the anesthesia by ten minutes. I can recall operations where a matter of five minutes would have been very serious. In these emergency operations of course the quickest method is the best. But if you have an operation of election where you can do just as you wish, then you have an opportunity of choosing between the various methods.

The ordinary cicatrix resulting from the box stitch neatly applied, is very slight. I have seen a number of my patients a year or two after operation and the cicatrix presented merely as a minute white line. So for the cosmetic effect I do not see any advantage of buried sutures over other methods of suturing. The great advantage of other sutures over silver wire is that they can be more rapidly applied, and after union has taken place the sutures are removed, nothing being left to cause after trouble.

As to the question of hernia following abdominal operations: I do not think there is any better method of suture that will do more to prevent hernia than the silkworm gut passed through and through. If this is carefully and properly done I do not believe ventral hernia will occur any more frequently, or as frequently, taking the number of cases operated upon, as by any method of terraced suturing, because the parts are brought together and maintained in accurate apposition until organized union is established, and no foreign substance is left in the tissues.

Dr. A. M. Cartledge: I believe that any method of closure of the abdominal incision may be very good, or it may be very bad, depending entirely upon the way in which it is done. This is the key note to the whole situation. As Dr. McMurtry has said, the through and through suture, properly applied, is in all respects as good and produces equally as small a scar as where you use the Halstead suture, and another thing in its favor is that the suture

can be quickly applied. A great deal of valuable time is lost in bringing the different structures together separately, and I believe when we have learned to apply the through and through suture, if our silkworm gut is perfectly clean, and if all blood is carefully wiped away from between the surfaces, our results will be as good by this method as by any other, and the occurrence of hernia following the operation will not be frequent. I had several ventral herniæ in my early abdominal work, which I now believe were due to the fact that I did not know how to close the abdomen; did not know how to apply the suture properly.

In regard to the technique presented to-night: Certainly the cases shown speak well for the method so far, but I was glad to hear Dr. Anderson says that the union must be vital and not mechanical to secure a perfect result. We all recognize the fact that we must get vital and not mechanical union in these cases, and if a suture is left in order to make a permanent stay, you leave a foreign substance in the abdominal wall to excite irritation and suppuration, which is like to cause after trouble. For one, I do not believe that two years is a sufficient time to test this method of suturing the abdominal wall. Three weeks ago I removed a silver wire suture used in a herniotomy last September, in which there was union by first intention over the silver wire. There has been since the operation some slight irritation; finally a little pimple developed which sloughed in the center, causing more or less pain. I made a small incision and removed the silver wire suture, closing the wound by the Halstead method. Sometimes when silver wire is embedded in bone it becomes the source of irritation and causes suppurative trouble. Certainly this would be more apt to occur when applied to the abdominal walls. Irritation and sepsis are elements of danger always to be considered in these cases, and while the patient remains in an excellent state of general health no trouble supervenes, but if the patient's health suffers from other causes and she becomes run down, irritation from the foreign body is likely to be productive of serious results. I do not agree in the statement that anything is to be gained by mechanical support of a silver wire suture in closing the abdominal wound, for we must remember that union must be vital; the silver wire is a foreign body, and after union takes place mechanical support is not needed; therefore, if we can obtain union without leaving a foreign body in the tissues, it seems to me this would be vastly preferable. I believe this can be done by means of the through and through catgut suture, to be left six or eight days; by that time the fascia will have united, and I would use catgut here as well as in the muscle and skin. It has been claimed, however, that you can get better apposition by the Halstead buried suture and a little less scar. If I am going to use a terraced suture at all, I prefer catgut. After all, no matter what method you employ, it depends more upon the way you do it than what you do it with. I have not had a ventral hernia in three years' use of the through and through suture. I have had stitch abscesses that may have been due to this method of suturing, but I believe if we are careful in not drawing the sutures too tight that this can generally be avoided.

Dr. W. O. Roberts: I have seen Dr. Anderson use the silver wire in closing the abdominal incision in a number of cases, and have used the same method myself on my last two cases. These patients are now convalescing, and in both of them the results are as good as in those Dr. Anderson has presented. I am quite favorably impressed with the silver wire suture for this class of work, because I think it gives better approximation than the through and through suture; by the through and through suture in many cases we do not get as perfect coaptation of the aponeurosis as we ought, and for that reason I believe this is a better suture. Then again, with the through and through suture, as Dr. Cartledge has said, we not infrequently get stitch abscesses. The only question is whether or not this silver wire will give any after trouble; I am inclined to think it will not.

Dr. James Bullitt: A word or so about the occurrence of stitch abscesses: I believe it is a recognized fact that no matter how well the skin may have been rendered

aseptic beforehand, if the suture is introduced through the skin from without, a stitch abscess may result from infection by the staphylococcus epidermidis albus, which may have been imbedded in the deeper layers of the skin and carried along with the suture. Stitch abscesses may also result from mechanical strangulation by drawing the sutures too tightly. Any suture which penetrates the skin is liable to carry infection with it. Owing to the fact that the through and through stitch takes in so much tissue, especially in a fat abdomen, in which the circulation is naturally very poor, strangulation will be considerable, and infection from the stitch carried through the skin may occur, no matter how perfect the aseptic precautions may have been beforehand. The terracing does away with this difficulty; employment of the Halstead sub-cutaneous suture practically does away with this possibility of infection, the stitch not being carried through the skin. It seems to me in that respect the Halstead method of suturing is a decided advance in the right direction. The small scar left is another thing which speaks in its favor, because for cosmetic reasons the smallest possible scar is advisable. One of the arguments advanced by some authorities for vaginal versus abdominal hysterectomy is that no scar is left. A great many patients object to carrying large scars on the abdomen for the balance of their lives.

Dr. Turner Anderson: I stated when I saw the first abdominal incision closed by means of the silver wire suture, and was told that it was an absolute safeguard against ventral hernia, having had some experience in hernia following abdominal operations, that I could not accept the statement on any theoretical reason. I said that we had to depend upon vital and not mechanical principles for the prevention of hernia in this situation, and I could not see any particular advantage in the use of the silver wire. But when I investigated the matter further, having the assurance of Dr. Kelly that it was a method he had used for a considerable length of time, and that it was a perfectly safe and most satisfactory method, as he has had a very large experience in this line of work, I consented to try it myself. I simply bring here the fruit of two cases in which this method was used. It is a question that time only can decide, whether this method is superior to others in practice. While I recognize that a few cases are not sufficient on which to base any positive conclusions, still, if there is a multiplication of cases resulting as satisfactorily as these, I shall continue to employ this method of suture. I think it would be my duty to do so. I fully agree in what Drs. Cartledge and McMurtry have said concerning the success attending the different methods of closing the abdomen, and of course we all recognize the importance of closing the abdomen quickly in emergency cases. It is my belief, however, that the method I have suggested can be carried out quickly enough so as not to endanger the life of the patient. If we had a sinking patient, however, and it was necessary to get her off the table at once, closure might be effected more rapidly by some of the other methods. We should not have sinking cases, as a rule, but if we do have them, then we might not have time to close the abdomen by the method I have described. We are not apt to have sinking cases if we are careful about the anæsthetic. With the patient in the Trendelenburg posture, and with ether as the anæsthetic, I think most any operable case can be taken through and gotten off the table without any great haste.

Dr. W. C. Dugan: This patient, female, æt. about twenty-six years, is one whom I operated upon fourteen months ago for carcinoma of the rectum. I simply exhibit the case on account of the interesting clinical features it presents. At the time of the operation it was thought almost useless to attempt any operative procedure, because of the extent of the trouble. I made a brief report of the case shortly afterward and presented the specimen removed, which was about six inches of the lower part of the rectum. Now here you see the result; there is no prolapse whatever, and she has had no trouble with the bowel except when she has diarrhoea, when there is more or less incontinence. There has been no extension of the malignant process thus far. Union as you will observe is

perfect, with the exception of one very small point along the anterior part. She was in a pitiable condition before the operation, as the obstruction was almost complete; she had lost a great deal in flesh. When examined it was ascertained that I was able to introduce only the tip of my little finger into the structure, and that by using considerable force. An incision about an half inch from the verge of the anus was carefully made, the skin dissected up and the external sphincter muscle cut so as to allow the bowel to be drawn down. Now to control the bleeding in the wound a half dozen forceps were applied to the loosened end of the bowel, and these acted as tractors, drawing the bowel down until the mass was brought into view. I was careful in the dissection not to enter the peritoneal cavity, and after working around the cancerous tissue and getting the mass down sufficiently low, it was excised. I have no idea how much of the bowel I could have drawn out in this manner, for the higher I went the easier it was pulled down. Next to the vagina the growth extended much higher, and I found when I had drawn the bowel out beyond the growth on the posterior part there was a second mass a little higher up on the other side, so that the bowel had to be drawn still further down, in order to include the second mass in my incision. I do not wish to be understood to say that these two masses were entirely disconnected. I was very much surprised at the ease and facility with which the bowel could be drawn down in operating by the method employed in this case. By introducing the finger into the vagina and another into the bowel you can feel a little induration on the side toward the vagina, that is in the recto-vaginal septum; I had not made an examination per rectum for quite a long time, until I saw her this morning.

I want to say in connection with the case, that this patient practically died upon the operating table; she was to all appearances as dead as she can ever be for several minutes. She was suspended, artificial respiration was practiced, and she was finally brought to. It has been fourteen months, and there are no indications of recurrence of the disease. The patient has gained in flesh, her appetite is good, she feels perfectly well, and the bowel gives her absolutely no trouble.

I remember when the specimen was presented the Fellows of the Society were not disposed to give anything like a favorable prognosis, and I confess the condition is quite different to what I expected at the time of the operation. But it goes to show what we may hope for, even in these advanced cases. I prefer this to all other methods of operating.

THE WILLIAM F. JENKS MEMORIAL PRIZE

The fourth triennial prize of \$400, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Etiology and Pathology of Diseases of the Endometrium, Including the Septic Inflammations of the Puerperium."

The prize is open to the competition of the whole world.

The essay, which must be written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pa., before January 1, 1898, addressed to Barton Cooke Hirst, M.D., Chairman of the William F. Jenks Prize Committee.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The *Economic Journal* prints an article contributed by Prof. E. S. Nitti, giving the annual consumption of flesh meat per inhabitant, as follows: United States, 120 pounds; Great Britain, 105 pounds; France, 74 pounds; Germany, 69 pounds; Belgium, 69 pounds; Holland, 69 pounds; Scandinavia, 67 pounds; Austria, 64 pounds; Spain, 49 pounds; Russia, 48 pounds; Italy, 23 pounds.

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ALFRED K. HILLS, M.D.

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REMOVAL.

The office of this Journal was removed, May 1st, to 180 West Fifty-ninth street, Central Park South.

Changes of standing advertisements and communications in regard to that department, should be addressed to BENJ. LILLARD, Advertising Manager, 108 Fulton St., N.Y.

ANTITOXIN.

THE recent discussion of antitoxin before the Academy of Medicine and the American Pediatric Society's report of an extended investigation have brought together so many valuable facts, and presented the arguments, *pro* and *con*, with so much ability and fairness, as to greatly aid us in determining the present status of the question, even though its final settlement be still remote. The most important point established by careful study of the data thus collected is the utter worthlessness of the method necessarily pursued hitherto in estimating the results of serum treatment, viz.: by comparison of *percentage mortalities*. A marvelous showing has in this way been made on behalf of antitoxin in the Pediatric Society's report, and in a long array of hospital statistics adduced during the Academy debate. But, "on the other hand" (as the *American Medico-Surgical Bulletin* puts it), "when we review the grand total mortality, as recorded per 10,000 population, the number of deaths from diphtheria has scarcely been lowered in any perceptible degree, thus showing, by the brute force of figures, a very wide difference between the percentage and the grand total mortality in this much-dreaded disease."

Dr. Winters' main position we believe to be unshaken by the sneers of his opponents: "If there is at work but a single factor, viz., antitoxin, in the reduction of mortality, that reduction must be below the lowest mortality recorded in the natural

history of the disease in any part of the world, and it must be steadily maintained below this rate in all parts of the world; otherwise the variations in mortality may be said to be due to the epidemic character of the disease."

"Percentage mortality is not only misleading, but is absolutely worthless unless accompanied by the actual number of cases reported and the actual number of deaths, and the report must also include a series of years, in order to enable the reader to compare present results with the results in previous years, when there was a mild type of the disease."

Compare this mode of looking at the subject with that adopted by Prof. W. H. Thomson on the same occasion, set off as it was by a parade of logical accuracy amusingly out of keeping with the real character of his remarks. "As it is both wearying and difficult for an audience to listen to tables of figures," he very kindly endeavors "to shorten this task by limiting it to one aspect of the subject only, namely, the verdict of hospital reports on the comparative mortality in the treatment of diphtheria with and without antitoxin." And again: "The subject in debate is whether the treatment of diphtheria by antitoxin, when compared with other methods previously employed, shows a greater percentage of recoveries or not. All discussion not limited to this plain question is a waste of words."

The coolness of these assumptions—the direct and the implied—extends also to the speaker's method of handling statistics, as shown in his citation of Soerensen's report of results from antitoxin in Blegdam Hospital.

The actual value in this case of "comparison with other methods previously employed," was very clearly exhibited by Dr. William L. Stowell, who, before giving his results in treatment, quoted "What Success Has Attended Other Remedies than Antitoxin." He said: "In one evening I noted more than 7,000 cases, with a mortality of 8.8 per cent., and this without including reports of 571 cases with only six deaths, and the like. Most of them are from private practice." A few years ago (the London *Lancet* says), when diphtheria was raging in England, the "celebrated Dr. Field" went about performing wonderful cures with nothing but powder of sulphur and a quill. With these he cured every patient, without exception, while the patients of others were dropping on all sides.

The sum and substance of the whole matter, we apprehend, is this: When it shall be ascertained that, under the use of antitoxin, the absolute number of deaths from diphtheria, through-

out the civilized world, has markedly decreased during a series of years, then, and no sooner, may we declare, with full confidence, that the remedy has triumphed.

Meantime, however, the most striking and encouraging feature of the Pediatric Society's report must not be overlooked. We refer to its testimony as to the power of antitoxin to control laryngeal diphtheria—the most fatal form of disease. "Among 1,256 cases of croup, 563 recovered without operation. Including all hopeless and moribund cases, the death rate among 503 cases of intubation was 25.9 per cent., less than half the lowest rate hitherto reported." These results are in agreement with those published by the London Metropolitan Asylums Board, and by Von Ranke and others in Germany. We do not see how they can be explained away. While they cannot be called conclusive, they certainly afford good ground for hope, and incite to perseverance if they do not justify enthusiasm.

With regard to antitoxin immunization, the weight of evidence seems to be decidedly against this practice. There is little doubt that, as Dr. Stowell said, "cleanliness and ventilation will immunize as well as hypodermic serum," and since the latter is admitted by its strongest advocates to be not without danger, why expose healthy subjects to unnecessary risk? In view of unfortunate accidents like the death of Prof. Langenhans' child, it may be pertinent also to ask: If the first eighteen months of vaccination had produced any such results, should we now be celebrating the centenary of Jenner?

INSPECTION OF CHARITIES.

THE State Board of Charities, in addition to their wide range of power granted by previous Legislatures, at the last session were invested with still larger power in the supervision of charitable organizations. They are now required to visit, inspect and maintain a general supervision of all institutes, societies or associations which are charitable or reformatory, whether State or municipal, incorporated or not incorporated.

There is a growing feeling in and out of the profession that free dispensaries have within the past few years increased to a larger extent than is needed for the really poor, and that in this way a large amount of money is yearly diverted from the broad and ever thirsty channels of true charity to furnish medical aid to thousands who can well afford to pay.

To thoroughly investigate this matter, and with ample power to act in case action is needed, the

State Board of Charities has appointed a committee, consisting of Dr. Stephen Smith, of New York; Tunis G. Bergen, of Brooklyn, and Dr. Stoddard, of Rochester, to thoroughly investigate the free dispensaries of the great cities and the State, and see if they are doing an amount of good which would warrant their being kept alive, or if evil may not arise from their accumulation that may prove an injury to the medical profession and an unnecessary tax upon the charitable. It is common with many dispensaries to charge a small fee, say five or ten cents for each prescription, enough to defray a part if not the entire cost of the medicine to the dispensary. Some of the dispensaries are chartered simply as charitable institutions, and by their charter have no right to charge even the smallest fee. This committee recently appointed will have the power to regulate these matters satisfactorily, to both the best interests of the institutions and the profession.

LAPAROTOMY FOR PTOSIS.

PERHAPS the latest extension of the application of abdominal section is to the treatment of Glenard's disease. Mr. Frederick Treves, in a recent number of the *British Medical Journal* (*Medical Record*), gives a description of this trouble, and reports a case in which he opened the abdomen for the purpose of relieving the condition. Glenard's disease, or abdominal ptosis, can hardly be called a disease at all, but is a series of symptoms, more or less definite, depending, it is supposed, upon relaxation of the abdominal wall and of the supporting ligaments of the viscera. The right bend of the transverse colon is first to fall, then the stomach is drawn down, then the rest of the transverse colon, and, finally, the whole mass of the small intestines becomes prolapsed. The liver and kidney become loose and are described as floating. The result of these conditions depends necessarily upon the extent to which the ptosis has involved the viscera. There are general disturbances of an anæsthetic character, nervousness and hysterical phenomena, and dyspeptic obstruction of the bowels, sense of weight and dragging, and pain over the region of the viscera.

Mr. Treeves' case was that of a young woman who had suffered from this condition for a long time. He advised the operation of laparotomy, and found that the liver and stomach were low down. The great omentum was rolled up into a round and rigid cord, and fixed in a collection of old tuberculous glands, situated in the mesentery of the ileum. These glands were removed and

the viscera replaced. The patient made a good recovery and was much improved.

Mr. Treves' case will probably set surgeons to work upon this new field, which, we trust, will be explored with wisdom and caution.

YOU NEVER CAN TELL.

TRUTHS formulated in the language of poetry often produce a stronger and more lasting impression than when written in plain, homely prose. The great thoughts which Ella Wheeler Wilcox has clothed with such poetic beauty and strength embody a sermon so pregnant with suggestion and truth and applicable to all, that every physician as he reads it in the quiet of his summer vacation will thank the gifted authoress for the truth and beauty of her utterance:

You never can tell when you send a word,
Like an arrow shot from a bow
By an archer blind—be it cruel or kind—
Just where it will chance to go.
It may pierce the breast of your dearest friend,
Tipped with its poison or balm;
To a stranger's heart, in life's great mart,
It may carry its pain or its calm.

You never can tell when you do an act,
Just what the result will be;
But with every deed you are sowing a seed,
Though its harvest you may not see.
Each kindly act is an acorn dropped
In God's productive soil,
Though you may not know, yet the tree shall grow,
And shelter the brows that toil.

You can never tell what your thoughts will do:
In bringing you hate or love;
For thoughts are things, and their airy wings
And swifter than carrier doves.
They follow the law of the universe—
Each thing must create its kind—
And they speed o'er the bank to bring you back
That ever went out from your mind.

AUTOTOXIC INSANITY.—At a meeting of the Medical Society of London, on May 11th, Dr. Allan McLane Hamilton, of this city, read a paper on the connection of autotoxis with certain forms of insanity, in which he considered at length the dependence of certain forms of psychic disturbance on the absorption of the soluble products of intestinal putrescence. The following were the conclusions of his paper: (1) Urines rich in indican contain very little or no preformed sulphuric acid, and are toxic; (2) when the sulphate ratio is materially changed it probably indicates autotoxis in connection with an increase in the amount of combined or ethereal sulphates; (3) such indications are generally found with acute insanities in which rapidly developing symptoms occur; (4) fugacious and changing hallucinations and illusions, unsystematized delusions, confusion and verbigeration, in connection with insomnia, pallor, intestinal in-

digestion, constipation, and rapid exhaustion are due to autotoxis; (5) paranoiac states, or those in which concepts are the main feature, chronic stuporous conditions, and certain forms of dementia have little to do with the formation of the intestinal products of putrefaction; (6) various post-febrile, traumatic, alcoholic, or drug insanities are those in which autotoxis is most constant; (7) the variations in the excretions of combined sulphates keep pace in the changes with the progress of an established insanity, *access* and epileptiform attacks being directly connected with putrefactive processes; (8) the most successful treatment consists in lavage, intestinal douches, gastric and intestinal antiseptics by means of hydrochloric acid, borax, salicylate of soda, charcoal, guaiacol, or naphthalin, in small and repeated doses, associated with the administration of a combination of the red marrow from the small bones, blood, and glycerine.

IN the typhoid fever prevailing at the present time, especially if of a malarial origin, we are very apt, as we approach the period of convalescence, to find even with a more or less acid reaction the urine decidedly offensive and containing, through chemical change in the bladder, more or less pus. A tablet of the *citrate of lithia* dissolved in water and repeated three or four times during the day gives a very cooling, efferverscing drink, and in a short time relieves the entire trouble, the burning sensation in the urethra and the bladder entirely disappearing and the water becoming clear and natural. Should the offensive odor and the pus exist with a strongly alkaline reaction, we are in the habit of giving a 5-grain tablet of boracic acid until the urine shows an acid reaction. Prompt attention to these matters expedites convalescence, contributes decidedly to the comfort of the patient, and removes the chances of permanent catarrhal troubles of the bladder.

LOW DEATH RATE.—It is a very gratifying fact that the death rate in this city the last six months is lower than it has ever been before. In 1891, from January 1st to July 1st, the death rate was 27-11, while in 1896 in the corresponding months it was only 22-32. There has also been a marked decline in the death rate of the so-called contagious diseases, that in 1892 being 3.23, and in 1896 2.06. With the improvements now going on in building and in the management of the public streets another decade ought to make this city the healthiest in the world.

BIBLIOGRAPHICAL.

THE Imperial Granum Co., of New Haven, Conn., has published, in unique and servicable form, a model bedside record called "The Nursing World Bedside Record for the Use of Physicians and Trained Nurses." The book contains sixty-four pages, and may be had gratis upon application and mention of this journal.

PRACTICAL POINTS IN NURSING for nurses in private practice, with an appendix containing rules for feeding the sick, recipes for invalid foods and beverages, weights and measures, dose list and a full glossary of medical terms and nursing treatment. By Emily A. M. Storey. Illustrated with seventy-three engravings in the text and nine colored and half-tone plates. Philadelphia: W. B. Saunders; price, \$1.75; 1896.

PRESENT STATUS OF PEDIATRICS. Edited by Benjamin F. Bailey, M. D., Lincoln, Neb., and Allison Clokey, M. D., Louisville, Ky.: 1896.

The object of the editors is to give in a concise form a *resume* of the present status of pediatrics. The articles are prepared by different writers, and as a general thing are well done. The limits of the work do not admit of lengthy discussion, and the authors confine themselves mostly to well established facts.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY, being a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, drawn from journals, monographs and textbooks, of the leading American and foreign authors and investigators. Collected and arranged with critical editorial comments by J. M. Baldy, M. D., C. H. Burnett, M. D., Archibald Church, M. D., C. F. Clarke, M. D., J. Chalmers DaCosta, M. D., W. A. N. Dorland, M. D., V. P. Gibney, M. D., Homer W. Gibney, M. D., Henry A. Griffin, M. D., John Guiteras, M. D., C. A. Hamann, M. D., H. F. Hansel, M. D., W. A. Hardaway, M. D., T. M. Hardie, B. A., M. D., C. F. Hersman, M. D., B. C. Hirst, M. D., E. Fletcher Ingalls, M. D., W. W. Keen, M. D., H. Leffmann, M. D., V. H. Norrie, M. D., H. T. Patrick, M. D., William Pepper, M. D., D. Riesman, M. D., Louis Starr, M. D., Alfred Stengel, M. D., G. N. Stewart, M. D., Thompson S. Westcott, M. D., under the general editorial charge of George M. Gould, M. D. One volume of about 1,200 pages, profusely illustrated with numerous wood cuts in text, and thirty-three handsome half-tone and colored plates. Prices: Cloth, \$6.50, net; half morocco, \$7.50, net. Philadelphia: W. B. Saunders, 925 Walnut street, 1896.

The object of the "Year-Book" is to give in compact form annually an epitome of new and progressive medical truths of the year, as reported in medical literature at large; this information being collected and arranged by eminent American specialists and teachers, under the direction of a general editor. Each associate editor, who is a distinguished practitioner or teacher, critically reviews the material collated and comments upon the value of new treatments and theories. Special training and experience are obviously essential for the accurate choice of those things in the line of true progress, and not only to select and summarize, but also to pronounce decisions upon the merit of a discovery and the value of a treatment. These discussions are carefully arranged and elaborately indexed. Illustrations are liberally introduced, the engravings—many being in colors—are taken from photographs or are reproductions of the authors' cuts, appearing with the respective original contributions to the journals quoted.

The American Dermatological Association will hold their next annual meeting at Hot Springs, Va., on the 8th, 9th and 10th of September. Dr. White will open a general discussion on the subject, "What Effect Do Diet and Alcohol Have Upon the Causation and Course of the Eczematous Affection and Psoriasis."

CORRESPONDENCE.

A VACCINATION "STATISTIC" EXPLODED.

To the Editors of the NEW YORK MEDICAL TIMES:

There is much reprehensible and unscientific talk about vaccination in Homœopathic books, and in one that I have recently examined are several passages that need eliminating or revision. This work is the "Handbook of Diseases of Children," by Dr. C. E. Fisher, 1895. It is not my intention to here write on the subject of vaccination, but to point out the unreliability of an important passage in that work, page 242, reading:

"Governmental reports show that during the Franco-German war of 1870 and 1871 the (smallpox) mortality of the French army, the unvaccinated, was 23,469, while that of the vaccinated German army was 261. From these figures it would seem that vaccination affords almost certain immunity from death from smallpox."

It is not alone because this "statistic" and the deduction from it appears in Dr. Fisher's work that I call attention to it, but it is doing yeoman service elsewhere, and its untruthfulness should be shown. The Brooklyn Board of Health and the State Boards of Rhode Island and Tennessee and numerous medical journals and newspapers are the latest users of it, and Dr. Quine, President of the Illinois Board of Health, used it in his address as President of the Illinois State Medical Society. Its exploding requires a little digging into history, when the following are found to be the facts:

The "statistic" has been traced as a stray newspaper paragraph, which was copied by the *British Medical Journal* in 1872, only the German loss has several times fluctuated greatly. Herr Steiger, Minister of the Interior, in a speech in the Great Council of Berne, February 6, 1883, stating it at 3162. Dr. W. B. Carpenter, the renowned physiologist, once used the item, and when shown his error publicly apologized, in words I could quote, in the *London Daily News*, August 7, 1872. Dr. Lyon Playfair then used it in his memorable speech for vaccination in the House of Commons, June 19, 1883, a speech he was making at the bidding of his constituents, whose collar he wore, as Laurie MacKenzie expressed it, at the time. The statistic was discredited on the spot by Mr. P. A. Taylor. Playfair (who in several instances in this speech did not play fair, though he did not meet a Kitson fate) held up Dr. Colin's work on smallpox, saying "I got it from the Physician General of the French army." He was then shown that the statement was not in Colin's book, and that Baron Larrey, not Colin, was Physician General. His speech was printed, and in this the statement was credited to the report of Dr. Thilenius to the Reichstag—German authority for French statistics.

Thereupon a letter was sent to the German War Office, under date of July 6, 1883, asking for a certified abstract of the smallpox deaths in 1870-71. In the reply, signed by Lisonke, Chief Clerk of the Minister of War, dated Berlin, July 30, 1883, the material part of the letter was as follows: "In 1871, three deaths in July, six in August, six in September, ten in November and twelve in December. For the time from July, 1870, to June, 1871 (the twelve months of the war) the numbers wished for are not recorded, and regret is expressed that on this account the desired information cannot be given."

Now for the French side: No official figures exist depicting the French loss by smallpox. They are unnecessary here. The military and sanitary conditions were not at all comparable, especially for such a filth disease as smallpox, as the beleaguered French were in bad shape, and the surrounding Germans had plenty of room, so we can easily believe that the French had more smallpox than the Germans. But Dr. Bayard, of the French army, writing in 1872, tells us that the army was not only vaccinated, but revaccinated. Hear him: "Revaccination originated in France. Every young soldier is revaccinated on his entrance to a regiment. Our army knows of no exceptions." Dr. H. Oidtmann, staff surgeon, and chief physician to the beleaguered Verdun and St. Quentin, Paris, hospitals during that siege, puts it thus: "Shortly

before the outbreak of the war the whole of the French army were revaccinated (and the French vaccinate till it 'takes.') This general vaccination tended rather to extend the disease than to protect from it." If there were 23,469 deaths, there must have been 166,000 cases, taking the Paris civilian mortality as a criterion—and all revaccinated! Carrying the proper ratio on, all this would require an army of 1,600,000 men! In short, the statistic has been officially exploited and exploded before three governments, Swiss, German and English, and our book-makers and boards of health ought to know it by this time.

In a somewhat extended and careful study of both sides of the perplexing question of vaccination I have learned that the unveracity of much of the *pro* side of it is appalling, and no term expresses the condition so well as vaccinal verophobia. It pervades all the literature so extensively that every statement in this field by a health officer, or otherwise pecuniarily interested person must be scrutinized with the greatest care before it can be accepted as fact. Nor do I attribute this condition of affairs to dishonesty, but to carelessness and to a disposition to accept a statement as truth rather than by laborious research prove it true or false.

Indianapolis, Ind.

W. B. CLARKE, M. D.

VIGOROUS ACTION AGAINST SUBSTITUTORS.

Fairchild Bros. & Foster have recently adopted vigorous methods for dealing with those druggists who substitute other preparations when Fairchild's are ordered, as will be seen by the following letter:

COPY.

Dear Sir: We beg to call your attention to the following statement of facts, which we believe will be of great interest to you as a practising physician, relying upon the pharmacist for dispensing the medicines which you prescribe:

On a recent date, a prescription of a ——— physician, ordering "essence of pepsine, Fairchild's," was sent to ——— drug store. The bottle dispensed upon this prescription was immediately sealed in the presence of a witness and expressed to us. A copy of the prescription was asked for and obtained, which proved to be an accurate transcript of the prescription, bearing date and number corresponding to those upon the label of the bottle dispensed. Upon examination, the contents of said bottle was found to be a fluid differing materially from Fairchild's essence of pepsine, so as to be obviously recognizable as a plain violation of the physician's prescription.

Another written order for Fairchild's essence of pepsine was sent to Druggist ———. Upon examination, this proved likewise to have been filled with a different and inferior fluid.

Subsequently, the same day, a messenger was sent to ———, and asked verbally for four ounces of Fairchild's essence of pepsine. He received a wrapped vial, for which he paid 50 cents. This bottle was found without label, and the messenger returned and asked to have the bottle labeled. The druggist then simply labeled it "essence of pepsine." Thereupon, the messenger requested the druggist to put "all the name on the bottle." The druggist told the messenger that he "would not dare to put Fairchild's name on the label, although it was all the same." The druggist finally admitted to the messenger that he was "out of Fairchild's essence," and then returned the 50 cents.

There is one significant fact that should also be mentioned; the price charged in these cases (as in every instance coming to our knowledge) is the same as the patient would be charged by pharmacists who dispense genuine medicine ordered. Comment is unnecessary.

In defence of our own rights, and in order that you may take such means as you deem best to protect yourself and your patients, we advise you of these facts. We further respectfully request that in prescribing Fairchild's essence of pepsine you will kindly send the prescription to phar-

macists, of whom there are many, who will faithfully respect their legal and professional obligations to physicians and to the public.

These prescriptions, sealed and certified, are in our possession, and we stand ready to still further substantiate these statements. Very respectfully yours,

[Signed]

FAIRCHILD BROS. & FOSTER.

SOCIETY REPORTS.

FRENCH MEDICAL SOCIETIES.

MEDICAL SOCIETY OF THE HOSPITALS.

Recurrent Scarletina.—M. Comby: Recurrences of eruptive fevers are rare; hence all carefully observed facts should be recorded. Of two cases of recurrent scarlatina, the first occurred under the service of M. Palier, an experienced hospital interne, in a girl four years old, who, fifteen days previously, presented all the symptoms of normal scarlatina. There was complete desquamation, when suddenly the fever was renewed, and a fresh scarlatiniform eruption appeared upon the body and limbs. The patient was cured after having presented symptoms of prostration, a typhoid condition, hyperthermia and diarrhoea.

The second case was observed at the Hospital Trousseau in a young girl of six years, entered in the special pavilion for normal scarlatina; had high fever and general eruption for one week, on the fourteenth day, when the fever had subsided, and general desquamation had taken place, a new eruption, like the first, appeared with return of fever. The recurrence lasted six days, and was followed by double otitis. Examples of recurrent scarlatina are recorded by Hénoc, Barthez, Rilliet and Senné. M. Perigord, of Limoges, published very recently in the *Limousin Medical* an observation on doubly-recurrent scarlatina in a girl of four years, the third eruption lasting a month. How to explain these eruptions? In the isolated pavilions, in which the patients are numerous, a reinfection might be suspected. But recurrences occur in families where the children are isolated, without there being other cases in the house or neighborhood, so this explanation is not admissible. It is then probable that the recurrence is explicable by the same pathogenetic cause as that of typhoid fever, viz.: by a germ that has not yet expended its virulence, and it is not a new disease that has declared itself.

M. Rendu recently observed a similar case, but his conclusions were different. The case was a child with normal scarlatina. On the subsidence of the fever and during desquamation a white angina occurred, with recurrence of fever, and a new scarlet eruption. He could not conclude that it was a recurrence of scarlatina, but a secondary infection by the streptococcus. Secondary infections are now recognized, and M. Lemoine has again called attention to them.

M. Le Gendre observed a case which did not admit of this explanation. It was manifestly recurrent scarlatina. After the first normal attack, a red angina and a new scarlatina occurred, which was identical with the first. M. Roger: The history of the recurrences of scarlatina presents a very difficult nosographic problem, because we do not know the pathogenic agent, and can only conjecture as to the nature of the accidents. Since January 1, 1896, of ninety patients observed there were ten secondary eruptions. In three cases the eruption consisted of lichenoid or papular erythema, which could not be considered as a recurrence. In five other cases multiform eruptions at the beginning clearly presented, on the second day, the appearance of an eruption of scarlatina.

Finally, two cases, after a grave attack of the disease, had eruptions identical in every respect with those of scarlatina. In one case there was a slight exanthema of the throat, and three days after its disappearance there supervened a third, much less extensive, but accompanied with serious general phenomena. We see, then, a series of facts establishing transitions between the different varieties of erythema, the most important of which simulates unmistakably the recurrence of scarlatina. M. Bé-

clère agreed with MM. Rendu and Roger as to post-infection and not recurrence. Most generally the so-called recurrences follow severe attacks, complicated with otites, suppurations, and other streptococcic manifestations. It is then but natural to ascribe these eruptions to a toxine infection of streptococcic origin.

M. Du Cazal reported a case of cerebro-spinal syphilis four months after the appearance of chancre.

SURGICAL SOCIETY.

Fibroma of the Ear.—M. Picque presented a report sent to the Society by M. Andain, of Hayti. The fibromata of traumatic origin are located on the lobule of the ear. M. Andain reported the case of a negro in whom the fibromata appeared in consequence of a cut from a whip, and another of a negress, in whom it was caused by a blow from a stick. Sometimes they are recurrent, and he has had to repeat the operation for their removal. M. Rontier thought that the term cheloid of the ear would be more appropriate. M. Delorme asked if the tumors were painful. In cases of painful cheloids, compression should be used. M. Michaux had seen two large cheloids of the ear, which were intimately connected with the skin; repeated applications of the actual cautery are preferable to removal. M. Ricius had published a case of cheloid of the neck from a burn, in which compression produced the best results. M. Kirmisson: The facts given in the report by M. Picque have long been known. The negro race is especially subject to fibroma of the external ear; it should not be confounded with cheloid. There are subcutaneous fibromata not connected intimately with the skin like cheloids. M. Lucas Championniere: M. Andain's description applies perfectly to cheloid. As to the possibility of dissecting the skin from the tumor, it is not necessary to do that in order to affirm that we have to do with a cheloid or not. Recurrences are frequent, and the tendency to the development of cheloid appears to diminish as the child advances in age. M. Poirier operated in only one case, which followed piercing the lobule of the ear.

Anchylolysis of the Knee and Cuneiform Resection.—M. Picque reported a case of M. Binaud, of Bordeaux, in which the patient was cured of a sub-acute rheumatism that was followed by a flexed knee and a posterior subluxation of the tibia. A cuneiform resection was made, and the two rotular fragments were sutured by silver wire. No drainage, results slight, cure rapid. M. Delorme: Blennorrhoeal arthritis cured by fibrous anchylolysis. Mobility, cure.

THERAPEUTIC SOCIETY.

Pembotano.—M. Pouchet has experimented with pembotano in cases of paludism that had resisted quinine and the arseniate of soda. He made a chemical study of the roots of pembotano, and discovered three active principles whose action was comparable to that of quinine; he proposes to continue his investigations, which are as yet incomplete.

Pharmaceutical Poisoning.—M. Créquy recalled the accidents occurring under various circumstances, and demanded that pharmacists should copy the formula of the medicines or medicines used upon the label of the bottle. M. Crinon thought it would be dangerous to copy the names of the substances. The only useful plan would be to copy the mode of administration. M. Berlioz was of the opinion that it was for the physician to request the pharmacists in certain cases to reproduce the formula. M. Catillon: The plan proposed by M. Créquy is adopted in Germany.

Accidents Due to the Impure Tincture of Iodine.—M. Blondel called attention to the pain and the peritoneal phenomena produced by intra-uterine injections of the tincture of iodine that contained methylic alcohol. M. Courtade replied that these accidents are frequent, and are due to iodo-hydric acid, produced by the tincture of iodine containing methylic alcohol. M. Ferrand emphasized the varieties of action of the tincture of iodine—not only its varieties, but its idiosyncrasies. Certain skins, and not the finest and most delicate, are very much affected by iodine. M. Crinon said that at the end of a month the purest iodine will contain iodo-hydric acid. It should always

be recent when used. M. Pouchet proposed a useful method for recognizing the presence of a large quantity of iodo-hydric acid. In any notable quantity it will prevent the iodine from precipitating in water. M. Vigier prepares a tincture of iodine that will not change. True, that the preparation is not an economical one, but it consists in using alcohol at 96 degrees instead of at 90 degrees, as the Codex prescribes. Hydration of the tincture is thus lessened, and the iodo-hydric acid that results is slower in forming.

Treatment of Alcoholism and Dipsomania by the Sulphate of Strychnine.—According to M. Bauzau, progressive subcutaneous injections of the sulphate of strychnine, dose, 6 millegrammes daily, will arrest acute and chronic alcoholic manifestations. In case other recognized forms of treatment are insufficient, they will give excellent results. They ameliorate dipsomania, but the treatment should be continued in pill form.

Treatment of Cataract in Diabetics with Anti Streptococcic Serum.—M. Boucheron: A diabetic patient of sixty years, and affected with cataract, became subject to a streptococcic disease—a lymphangitis of the leg and foot. He received an injection of the serum, and taking advantage of the period when by the injection the disease had been much relieved, extraction was practised. The wound healed by the first intention without the least congestion, and the result was definite and complete. The serum used was that of Marmorek, and this case proved that it can be used in diabetics that are streptococcic, and that the extraction of cataract can be successfully accomplished after the preventive action of the serum, in spite of the existence of glycosuria and streptococcia.

FRENCH SOCIETY OF LARYNGOLOGY, OTOTOLOGY, AND RHINOLOGY.

Epileptiform Convulsions from Hypertrophy of the Tonsils.—M. Boulay, of Paris: Among the numerous nervous troubles that may accompany the different affections of the nasal fossæ and pharynx, especially hypertrophy of the tonsils, convulsive phenomena may be, though rarely, enumerated. The following case is a typical example of epileptiform convulsions associated with enlarged tonsils. The tonsils of a child were enormously enlarged, with adenoid vegetations; a boy of twelve years; and since he was two years old was subject to nocturnal nervous attacks, with dyspnoea that threatened asphyxia. The tonsils were removed, and he had no further attacks; the vegetations also were ultimately dispersed. This was probably not true epilepsy, but the convulsive seizures were analogous to the epileptiform phenomena that are caused by foreign bodies in the ear and certain lesions of the nasal fossæ.

Acute Catarrhal Otitis of Middle Ear and Microbes.—M. Lannois: The result of my investigations of animals is that the normal middle ear is an aseptic cavity and contains no micro-organisms. The fluid of catarrhal middle otitis does, or does not contain microbes, accordingly as we examine it at a period recent or not after the attack. The disappearance of microbes, when the effusion dates from a certain time, is probably due to the bactericidal power of the mucous membrane and the fluid it secretes.

Oxygenated Water in Oto-Rhinology, its Hemostatic Action.—M. Gellé: Water oxygenated at 12 vol. has an energetic vaso-constrictive power, and consequently produces rapid hemostasis. It may, without danger, be introduced into the middle ear. Its antiseptic and hemostatic influences make it very valuable in oto-rhinology, in hemorrhages after the removal of vegetations, in epistaxis, which is easily arrested by its introduction into the nostrils by a tampon soaked in it. Excellent for cleansing the external auditory canal, it also offers another great advantage of being painless and of making bloodless the surgery of the ear.

GERMAN SURGICAL SOCIETY—CONGRESS OF BERLIN.

Bactericidal Action of Certain Salts of Silver.—M. Crède, of Dresden: The bactericidal action of metals in the pure state has been often demonstrated. In the first rank comes thallium, then silver, cadmium and copper, etc. Microbes secrete lactic acid, which attacks the

metal, and the lactate so produced acts in its turn, the salts of thallium being a very energetic poison. I have experimented with the lactate of silver, then the carbonate, which is less toxic. This last salt, which I have employed for many months, has yielded excellent results in the treatment of wounds. In five cases of erysipelas the lactate of silver has been employed with much success.

Bacteriotherapy of Malignant Tumors.—M. Peterson, of Heidelberg: From a series of experiments made at the clinic of M. Czerny with sterilized and filtered cultures of the streptococcus pyogenes, the streptococcus prodigiosus pure and associated, and with the serum of animals inoculated with these cultures, it was concluded that the action of filtered cultures is less energetic than that of sterilized, and that of serum, still less—four times. In ten cases of cancer, the therapeutic effect of the different treatments was not appreciable. Only one case out of seventeen of sarcoma was sufficiently modified to permit surgical intervention. M. Rosenberger, of Wurtzbourg: The serum has given results only in cases of sarcoma.

Origin of Articular Foreign Bodies.—M. Barth, of Marbourg: I have studied twenty-one cases of articular solids in order to determine their origin. They seem to proceed from two causes, traumatism and deforming arthritis, and never from dissecting osteochondritis.

Treatment of Fractures of the Radius.—M. Braatz, of Koenigsburg: I propose to replace the splints usually employed, and which have the inconvenience of supporting only one side of the wounded extremity, by a splint made for each special case, by means of a solid tissue and plaster, fixing the two sides of the forearm, to be left in place for three weeks, and followed by massage and exercise.

M. Storp, of Koenigsburg: I employ splints only when the normal position of the fragments cannot be maintained otherwise. After making the reduction I envelop the wrist in a large bandage of diachylon, and suspend the limb in a narrow bandage, taking care to make the upper part of the fracture the point of support. At the end of ten days, I remove the bandage and begin with massage.

A Method Destined to Supersede the Caesarian Operation.—M. Dührssen, of Berlin, proposed to replace the Caesarian operation in cases of atresia or retraction of the neck, by the following operation, which has been successfully employed: Make a long incision, antero-posteriorly upon the cervix, remove the bladder and peritoneum from the cul-de-sac of Douglas, afterwards open completely the cervix and lower segment of the uterus, pass the hand and extract the foetus.

Otorrhœa.—The ordinary discharge from the ear is a chronic suppuration of the middle ear, escaping from a perforation of the tympanum. The relations of the petrous bone, of which the middle ear forms a part, with important organs, often cause serious disease, with the complication of facial paralysis, cerebral troubles, and especially meningitis. The passage of a suppurative otitis into a chronic form is due either to a general unhealthy condition—tuberculous, syphilitic—which should always be looked to in an old otorrhœa; or to secondary infections from the pharynx, Eustachian tube, etc. Otitis of the middle ear is very often accompanied by mastoiditis, which may continue latent for a long time and keep up the discharge. As respects treatment, consider first the general health, always with reference to syphilis. To prevent retention of pus, make insufflations of air by the Politzer process, and injections of warm water; drop in some antiseptic fluid, viz., phenic glycerine, phenosalyl, etc. Dress the tube with iodoform gauze; for the vegetations use boric alcohol, or touch with perchloride of iron. If these are insufficient, curette the vegetations, extract the carious ossicles, or finally make a large opening by Stacke's process, combined or not with opening of the mastoid centrum.

Organotherapy and Serotherapy for Troubles Resulting from Ablation of Annexa and Hysterectomy.—Dr. Picherin signalizes cases that present congestions of the side of the face, swellings, cerebral disorders, etc., following castration. In one of them he administered subcutaneous in-

jections of the liquor of Brown-Sequard, and soon observed marked amelioration. Two other cases were treated with injections of artificial serum; the immediate results were remarkable.

MM. Mainger and Mond, of Kiel, report similar cases, that were ameliorated by injections of the crude ovarian substance of the cow. The fluid extract of ovarian substance was found to be inferior to testicular juice.

Sterility Not Always Imputable to Woman.—This proposition, which has been forcibly defended in France by Prof. Pajot, has just received new confirmation by Dr. Vedder, of Christiana, who carefully examined 300 married women and their husbands that were childless. He proved in effect that in 70 per cent. of the cases sterility was due to the man, either directly in consequence of functional impotence or the absence of spermatozoa, or indirectly from the infection of the woman by gonococci. In 30 per cent. of the cases the cause was due to the woman, and most generally owing to the presence of neoplasms or atrophy of the uterus (*Norsk Magazin for Lægevidenskab*).

Pruritus Vulvae.—The causes of this affection are often obscure, and the treatment proposed is generally unsatisfactory, as is demonstrated by the innumerable remedies contained in books of pathology, and which often serve to aggravate the malady. There are many cases in which the pruritus seems to be an individual affection, and not complicated with diabetes, or any uterine or renal trouble, and these cases are the most obstinate. The vulva is then generally dry, and remedies should be applied in the form of pomades and not in solution. In those that are entirely rebellious, one is authorized to practise the operation of Schrader and Küstner, which consists in excising the diseased parts of the mucous membrane. The operation of excising the whole mucous membrane of the vulva, with the clitoris and the labia minora, has been successfully performed.

Spontaneous Fractures.—M. Dumis, of Berlin, has observed thirteen cases of spontaneous fracture, which were cured with a slight retraction of the limb. As respects their etiology, the cause, in his opinion, is always due either to a tuberculous or syphilitic condition.

Nitro-Glycerine in Hepatic Colic.—M. Turnbull proved the therapeutic action of nitro-glycerine in hepatic colic in a woman of forty-eight years. The attacks were very violent, but soon disappeared after the administration of 1 to 2 capsules of nitro-glycerine, each containing 0 gr. .0005 of the drug. It acts by paralyzing the involuntary muscles.

Phosphorus in the Chronic Cephalgia of Children.—Dr. Hartcop, of Barmen, in the cases of persistent cephalgia of anæmic and nervous children, administers phosphorus dissolved in cod liver oil during winter, and in emulsion in summer. The dose, from one to five years, is 5 decimilligrammes, and from five to twelve years, 6 decimilligrammes, twice a day, one hour after eating. Suspend it if gastric troubles should supervene. In case of diarrhœa, add 5 centigrammes of the tincture of opium; duration of treatment varies from six months to a year.

Anchylosis of the Knee Following Blennorrhagic Arthritis.—M. Delorme: I present a patient whom I have happily succeeded in curing of anchylosis of the knee. After an acute attack of blennorrhagic arthritis, the knee became motionless and ankylosed. Being satisfied that the extensor muscles were in good condition, I under took to mobilize the articulation. My first attempt showed me from the cracking sounds that were heard that it was a case of fibrous anchylosis, so I persevered, and at the end of four months, and after fifteen efforts, the satisfactory result which you see was obtained.

M. Kirmisson: These cases are as interesting as they are rare; we know the tendency of blennorrhagic arthritis to anchylosis. For my part, I saw a case in which the more I tried to mobilize the joint the more consolidated the anchylosis became.

M. Michaux: Since surgeons have adopted early arthrotomy as a rule, anchylosis have become much more rare.

Pulmonary Tuberculosis and Endocarditis.—The autopsy of a patient in the hospital service of Prof. Potain revealed an enormous cavern, and at the same time the presence

of a cardiac lesion involving the mitral orifice, which was slightly contracted by numerous adhesions. This is an example of the contradiction of the classic affirmation of the "antagonism between affections of the heart and pulmonary tuberculosis." In the majority of cases, tuberculosis associated with endocarditis is nearly always of slow progress. As respects the relations existing between tuberculosis and endocarditis, three conditions should be distinguished, first, real tubercular endocarditis; second, ulcer endocarditis, the result of secondary infection; third, sclerous endocarditis, which appears to be the effect of the influence exercised by the tuberculosis upon the myocardia, as upon other organs. The diseases of the heart which produce ischaemia of the organs favor the development of tuberculosis, and those which produce hyperaemia are opposed to its evolution. Tuberculosis, then, would seem to be stimulated in patients with mitral retraction.

Treatment of Purulent Ophthalmia.—Dr. Galewski: Every day new topical applications are proposed for the cure of purulent ophthalmia, the permanganate of potash for example, and I persistently oppose this excess of zeal of ophthalmologists. We possess in the treatment by the nitrate of silver a sure means that has not failed for twenty years, in the ophthalmia of infants, when employed in the fortieth solution or pencil cauterizations, followed by an application of salt water to saturate the excess of the nitrate. The preventive treatment with citron juice or with a weak solution of the nitrate, that certain physicians and midwives employ immediately after birth, is useless and dangerous, because they are not sufficient to kill the microbes of ophthalmia if they already exist upon the conjunctiva, and have produced the conjunctivitis of which they are capable.

Forcible Delivery in Eclampsia.—M. Charpentier read a report of an observation of M. Robert, of Pau. In a case of eclamptic albuminuria, and at the seventh month of pregnancy, forcible delivery by progressive manual dilatation, and under chloroform, was practised. It was only by several incisions around the periphery of the uterine neck that the hand of the operator could be introduced. While this practice was followed by success, the reporter did not think it should be generally employed. Why not have attempted to arrest the attacks by the use of chloral or chloroform, or of venesection? In eclampsia supervening at an early period of pregnancy, and if the attacks are not of long duration, these means are often sufficient. Generally speaking, it is not necessary to interfere by forcible delivery in eclampsia unless death is imminent. The observation of M. Robert was followed by a pathogenic theory, according to which there was the presence of pus, which would have caused the eclamptic attacks, but which the reporter thought was unfounded.

Romberg's Sign in Tabetic Amaurosis.—M. I. B. Charcot: A patient, tabetic for twelve years, and presenting besides the typical lesion of tabetic amaurosis, suffered violent pains, and had the sign of Westphal, but without the least motor inco-ordination. Suddenly he presented Romberg's symptom, rendered permanent by amaurosis. This pathological phenomenon diminished in a month by the treatment by suspension.

Functions of the Supra-Renal Capsules.—M. Charrin presented a paper by M. Petit, which considered the question of the role played by the capsules in fevers. Under the influence of certain toxins, particularly the microbic secretions, the cells of the acini become granular and swollen, and show considerable activity. From this fact one is authorized in placing the capsules among the group of important viscera in physiological pathology.

SOCIETY OF MEDICINE OF ROUEN.

Results of Symphyseotomy.—Dr. Martin presented two cases of symphyseotomy, one of which had been operated upon three months previously and the other sixteen months. Both were cured, and they experience no suffering from walking or running, or executing any kind of movement. The vesical sphincter is not injured; the pubis, slightly movable, causes no functional trouble. Dr. Martin then reported the first symphyseotomy that had occurred at Rouen, in which, despite the mobility of the pubis, and a slight incontinence during quick walking, the

patient is not obliged to keep her bed. She can walk and attend to her duties without experiencing pain. It is unjust, without proof and in a general way, to affirm that symphyseotomy disables women; on the contrary, it is but just to declare that it has already saved many children.

SOCIETY OF INTERNAL MEDICINE OF BERLIN.

Pathogenesis of Icterus.—M. Reuvers made contributions to the pathogenesis of icterus. Hematogenic icterus, the production of icterus from the blood, is not admitted; hepatogenic icterus alone exists, because it is only in the liver that the biliary pigment is formed. Acute catarrhal icterus, which it is admitted is produced by the obstruction of the choledochus by a mucous plug, in consequence of catarrh of the duodenum, should be divided into two clinical groups, the apyretic and the febrile. Apyretic icterus attacks vigorous individuals in full health, the urine becomes icterous, the stools are discolored, anaemia is pronounced and persistent. According to the author, the etiology by biliary stasis does not often exist, but nearly always proceeds from an icteric poison due to an invasion of bacteria and their toxins. Febrile icterus belongs to the chapter of gastro-duodenal catarrh with icterus, and the infectious nature of this icterus is demonstrated by Reuvers, who found in the bile bacteria of different sorts. Chronic icterus is produced by an obstacle to the elimination of the bile, which causes its reabsorption in the biliary canals, and is due to calculi, cirrhosis of the liver, abscess and echinococci; icterus is rarely produced by stasis, but it habitually comes from an inflammatory icterus provoked by calculous irritation. The gall bladder is very often increased in volume in cases where the calculi are retained in the choledochus. It is also augmented in cases of acute inflammation complicated with icterus. When the inflammation is provoked by calculi it often results in the penetration of germs into the vesicle, and to the increase of the volume of the vesicle are joined the phenomena of pyemia.

Voluminous Primitive Cancer of the Right Ovary, with Ascites, in a Young Girl of Seventeen Years.—Primitive cancer of the ovary is rare; it comprehends two principal varieties, the diffuse and medullary, the superficial and papillary. According to M. Pozzi two opinions prevail respecting the treatment, one by Schroeder and others, that it is better to abstain, by reason of the inherent dangers of the operation, and the slight chance of cure; on the other hand, Spencer Wells, Ruge, Cohn, Martin, Pozzi, etc., advise the operation whenever the extirpation of the tumor is possible; because, in the first place, of the instantaneous relief of the patient, and also because a cure, at least temporary, can be obtained. The young girl who was the subject of the above disease had a large primitive cancer of the right ovary with ascites; laparotomy was performed, and a tumor, weighing 3 kil. 700 was removed. One year after the operation she was in a satisfactory condition of health, slightly pale but increased in weight, with renewed strength, so that she could resume her occupation as seamstress. Her appetite excellent, and no appearance of relapse.

Hydarthrosis and its Treatment.—Hydarthrosis is a chronic serous effusion consecutive upon irritation of an articular serous membrane. Its presence is revealed by the disappearance of the peri-articular hollows and the appearance of small projections due to the forcing out of the soft parts by the effused fluid. It is very often accompanied with muscular atrophy, especially when the affection has lasted some time. Its nosological diagnosis is simple, but the etiological is important, for it suggests the prognosis and the rational treatment, as also if the cause be local or general. The local causes embrace wounds, torsion, fracture, chronic diseases of the articulation, dry arthritis with foreign bodies, tabes, osseous affections, phlebitis. Certain general diseases, such as syphilis, tuberculosis, rheumatism and blennorrhagia, very frequently determine hydarthrosis. Idiopathic hydarthrosis should be erased from the nosological record. The treatment varies with the cause and with the period of the appearance of the effusion. Commence by mild measures, perfect rest, counter-irritation, compression and massage. If all these measures fail of success, employ puncture.

followed by an irritant injection—phenic water, 5 per cent. In cases that resist absolutely, have recourse to arthrotomy. General treatment should not be forgotten; massage will cause the muscular atrophy to disappear.

Treatment of Pleurisy by Massage.—M. Kemper has applied the method of Prof. Murray, of Stockholm, for the treatment of pleurisy. It consists in movements of the thoracic walls, combined with massage, and passive movements of other parts of the body. The following is his process. The patient lies in his bed, upon his healthy side, with the head slightly elevated and resting upon a hard pillow, limbs flexed, arm of the affected side turned upward and backward. In this position the movements of expansion during inspiration and also of expiration of the healthy side are restricted, while the diseased side is in the most favorable position for free respiratory movements. The patient is then directed to close the mouth and make from sixteen to twenty deep respirations per minute, during which the physician applies massage to the intercostal muscles in order to force the movements of inspiration into the compressed pulmonary lobes as much as possible. At the moment of inspiration that part of the thorax where the effusion is must be pressed by the palm of the hand. The thickness of the liquid effusion diminishes, it is forced upwards and comes in contact with the healthy part of the pleura, which has retained its power of absorption. In order to act more directly upon the effusion a series of rapid movements, gentle and vibratory, is executed by the forearm on the thoracic wall over the diseased part. In this way M. Kemper has successfully treated eighteen pleuritics with effusion, and two dry pleuritis. In two cases only was there no amelioration, and in one there was an aggravation. In recent pleurisy massage is contra-indicated, but even then gentle movements and slight oscillation produce good results.

J. A. C.

INTRALIGAMENTOUS CYST—PELVIC PERITONITIS—OPERATION—RECOVERY.

By LOUIS FRANK, M. D., LOUISVILLE, KY.,

Associate Professor of Obstetrics and Director in the Bacteriological Laboratory in the Kentucky School of Medicine, etc., Louisville, Ky.

The following case may be of interest on account of a few peculiarities. About ten days ago I was asked by Dr. H. E. Tuley to see a case with him for some pelvic trouble. I made an examination and found a tumor, the exact character of which I did not make out perfectly, upon one side of the abdomen. On the other side I detected some induration. The history of the case was one typical of tubal inflammatory disease, the patient being a woman eighteen years of age, married, with the history of pelvic trouble extending over a period of about two years. Diagnosis of pyosalpinx was made, and an operation was advised and carried out a few days later. At the operation a tumor was found on the right side, which had been detected by bimanual examination, extending to the uterus and to the walls of the pelvis on the outer side. After a careful examination it was discovered that the tumor was not a pyosalpinx, nor inflammatory trouble of any nature, but it was an intraligamentous cyst. There were a great many adhesions between the bladder, between the omentum, intestines and mesentery, low down upon the left side, also upon the right side, where this tumor was present, and over the surface of the tumor itself. The adhesions were carefully separated before I attempted to remove the tumor. The cyst was about the size of an orange, probably $2\frac{1}{2}$ to 3 inches in diameter. After aspiration, which was done with a large aspirator needle, the fluid was drawn off, the capsule was incised and the cyst enucleated. The cavity was then packed with gauze. The patient has done uninterruptedly well since the operation, the highest temperature being 100-1-5° F.

The points of interest about the case are the patient's age and the immense number of adhesions present. I believe the adhesions were due to a pyosalpinx which had

existed upon the left side. The tube and ovary upon the left side were matted in adhesions, and when these adhesions were separated it was found impossible to obtain sufficient pedicle to be ligated; they merely existed as a small mass lying close to the uterus itself and were not ligated and removed. The tube upon the side where the cyst was present extended over the cyst itself.

Another peculiar feature of the case was that the ovaries had been completely destroyed, which we find rather unusual in cysts of such small size. No pedicle was present, and we were compelled to enucleate the cyst completely and entirely from the folds of the broad ligament. With a cyst of this size, even when intraligamentous, or beginning in the paroöphoritic region, we are usually able to obtain a pedicle, and we do not find the ovary is destroyed as early as in this case. This tumor presented all the characteristics of a paroöphoritic cyst, and there were papillomatous masses upon its inner surface. It extended deeply into the broad ligament, separating the broad ligament completely, and extended out to the bony wall of the pelvis. There had been no extension above the line or plane of the pelvis.

Dr. W. H. Wathen: Intraligamentous cysts that are supposed to arise in the hilum of the ovary are necessarily embedded in the folds of the broad ligament at their beginning, and remain so. In other words, they have no pedicle at any time and keep burrowing in all directions. Where there is an intraligamentous cyst which is not too large, and where both sides of the adnexa of the uterus are destroyed, the operation by vaginal hysterectomy is decidedly preferable to any other method, because the dangers are less, convalescence is more rapid, and the woman has no wound on the abdomen to annoy her or to cause ventral hernia. These cysts can be removed nicely by vaginal hysterectomy, and any one who has had no experience in removing them per vaginam, having confined himself to laparotomy for such conditions, will be surprised to see how easily they may be removed. I have operated several times per vaginam for removal of such cysts. In one instance the cyst had suppurated and extended up nearly to the umbilicus; there was also a pyosalpinx upon the opposite side, which had extended up about the same distance. These cases usually do well, sitting up in six or eight days, and generally have no trouble.

I was pleased to hear Dr. Frank say that the extensive adhesions were separated without injury to any viscus, because many operators argue against vaginal hysterectomy in cases of this character, or any abscess in the pelvis, and assert that it is impossible to separate the adhesions completely, and that very imperfect work is done. I have contended that adhesions can be separated per vaginam, and we are sometimes surprised at the ease with which it can be done.

Dr. A. M. Cartledge: Four weeks ago I was called to see a woman in consultation. She was sixty-three years of age, and gave the history that she had been suffering six or eight weeks with uterine hemorrhage, and diagnosis of carcinoma uteri was made by the attending physician. The doctor also said there was another interesting feature about the case, *i. e.*, that the old lady had a pelvic tumor, about the size of a fetal head, which had existed since she was thirty-five years old. She had consulted a number of physicians from time to time, who had all advised her not to have the tumor removed. An examination seemed to demonstrate that the tumor was connected with the uterus. The tumor was fixed in the pelvis, and the evidences were such that made the diagnosis of uterine carcinoma very questionable, and I concluded that it was an old myomatous tumor of the uterus, from the history that it had existed for thirty years or more. She also gave the history of such menstrual derangements in earlier life as would indicate fibroid disease of the uterus. The important question was the best method to be employed in removal of the tumor. Its condition was so fixed that I did not care to attack it from below. If the tumor was a fibroid I thought it was too large to be removed per vaginam. I therefore made an abdominal incision; adhesions were found very extensive, it being a very old cyst; it was raised

up out of the dense mass of adhesions, and while being delivered the cyst ruptured, discharging one and one-half pints of fluid. It is a notable fact that intraligamentous cysts rarely attain a large size. In this case the cyst was fully as large as a foetal head, and had not increased in size for about thirty years. The case presented a very serious aspect from a surgical standpoint. The adhesions were terrific, and the rupture of the cyst also complicated matters. I decided that the best thing to do was to combine the methods of abdominal and vaginal hysterectomy, going in from below and clamping with forceps as best I could; doing a complete operation. This plan was followed and the patient did uninterruptedly well, leaving for home on the sixteenth day after the operation.

Dr. W. C. Dugan: Lanphear, of St. Louis, was the first to combine the two methods of abdominal and vaginal hysterectomy. If Dr. Frank had employed this method in operating upon the case he has reported, clamping from below as Dr. Cartledge has mentioned, he would have simplified matters very much and would have been able to remove the uterus at the same time.

Dr. Louis Frank: Like Dr. Wathen, I believe where we contemplate doing an hysterectomy in addition to our operation upon the adnexa, if we can demonstrate that there are not extensive adhesions, it is far better to perform a vaginal hysterectomy. Enucleation is much more easy, and after removal of the cyst we have a free outlet for drainage. However, where there are extensive adhesions, such as were encountered in the case reported, and where we hope to save the appendage on either side, I believe operation from above is the better plan. With the adhesions encountered in this case, it would have been impossible to deal with them from below, and these adhesions were undoubtedly the cause of the intense pain with which the woman suffered. The pain was not due to pressure from the cyst itself, but due to the adhesions which had occurred, probably from inflammatory trouble upon the opposite side, which had set up a pelvic peritonitis. The adhesions were very extensive, and were between the broad ligaments upon both sides, between the viscera and the intestines themselves, and could not have been separated from below. The cyst was pulled out of the pelvis, and was not intimately connected with any of the viscera, so there was no trouble in enucleating the cyst itself.

As to the question of intraligamentous cysts having a pedicle: When these cysts are of small size, and where they arise in the broad ligaments, unless they burrow deeply, we may often be able to obtain a pedicle. We should differentiate between true intraligamentous cysts and cysts which arise from the parovarium. In those cysts which arise in the parovarium it is always possible to obtain a pedicle, unless they have burrowed deeply and have reached an enormous size. J. Bland Sutton, in his latest work, dwells at length upon these points. This was a true intraligamentous cyst, as shown by the presence of papillomatous masses within the cyst proper, and it is certain that the case could not have been as well operated upon from below.

(This patient has, since the above report, fully recovered.) L. F.

AMPUTATION OF BREAST FOR MULTIPLE ABSCESS.*

BY W. C. DUGAN, M. D., LOUISVILLE, KY.

The specimen which I present is a breast which I removed for chronic multiple abscess, and it proved to be nothing more or less than that. I merely present it to call attention to a few points. Here was a woman who had multiple abscesses several years ago which destroyed her breast; at this time she was sick for more than one year, and a few months ago the trouble returned. Her breast was destroyed, it was hard and presented a number of masses or nodules; you will notice the nipple is depressed, which makes it look very much like a malignant growth, but from the history I was satisfied it was not malignant, or if so, the malignancy was secondary to

the abscess. I decided to remove the breast, because if left the abscess could probably not have been cured, and besides this the breast was functionally useless and would most likely take on malignancy afterwards, so I considered it conservative surgery to remove it. I did not know at the time that there was pus in it. The abscess was very deep, right against the peritoneal covering of the muscle.

The points that I desire to emphasize are that I performed the operation for chronic multiple abscess of the breast, which had rendered the gland functionally useless in a patient much run down in health, and in view of the fact that these breasts are so apt to take on malignancy later.

Dr. W. H. Wathen: Last October Dr. Dugan assisted me in removing a breast which we pronounced sarcomatous. The day after the operation I cut through the tumor and found a large abscess containing an ounce of pus, so I came to the conclusion that Dr. Dugan and myself had made a mistake in our diagnosis and we had simply removed a breast for abscess; but a specimen was taken to the laboratory, a section was made and carefully examined, and pronounced unmistakably sarcomatous, suppuration having occurred in the substance of a malignant growth.

Dr. F. W. Samuel: It has been demonstrated that chronic mastitis may often be mistaken for malignancy, on account of contraction of the nipple which frequently occurs. I merely wish to commend the operation performed by Dr. Dugan, and he has probably saved the woman from malignant disease.

Dr. A. M. Vance: I have operated upon one case similar to the one reported by Dr. Dugan, and for the same reason he has stated.

Dr. J. W. Irwin: I am tired hearing of the surgeon cutting out the breasts of women for everything. I attended a woman in her fifth confinement. After the four previous confinements each time she had had an abscess of the breast, until it was fissured and furrowed out with cicatrices in every direction. After the fifth confinement she had no abscess and she had milk in the breast. It seems that some of its milk ducts were still intact. It developed into a fairly good breast and she gave milk from it. I think when we see abscesses of the breast that we should treat them just as we do abscesses elsewhere about the body, unless there are other evidences than chronic suppurative mastitis. We should let such breasts remain. Operators seem inclined to go to extremes.

Dr. A. M. Cartledge: I think the operation as performed by Dr. Dugan is a step in advance, but we should throw a certain restriction around the operation, just as he has done. I would rather hear a man say he would amputate an inflamed breast that was functionally destroyed than to hear him say the operation was done partly because he thought it would become malignant. I am afraid it would be establishing a precedent which would cause the sacrificing of a great many breasts that should not be sacrificed. However, there is a surgical principle to support Dr. Dugan in the operation performed. Where we have multiple abscess of the breast, the involvement is such that it is sometimes almost necessary to remove the breast in order to relieve the pathologic condition. If chronic multiple abscess has existed for six or eight weeks without improvement under less radical means, it is well in some cases to amputate the breast, otherwise we have the danger not only of malignant degeneration, but also of chronic sepsis, and the breast would probably have to be removed later. Amputation of the breast may also be advised where there is but one large abscess, for the same reason. Where the breast has been the subject of multiple abscess with numerous cicatrices, the function of the gland is usually destroyed, and might as well be sacrificed, owing to the dangers already indicated. Usually multiple abscesses of the breast are attended with sub-acute pyæmia.

Dr. W. C. Dugan: The question of removing the breast under conditions stated is a very serious one, and I hesitated for a long time in this case. I had the patient under observation four years ago. She had then been sick for a number of months with this abscess, and was treated by some of our best physicians. The condition

* Reported to the Louisville Clinical Society, and stenographically reported for this journal by C. C. Mapes.

was very much as Dr. Cartledge has described; she had multiple abscess. At that time we opened it thoroughly and scraped out the diseased tissue as well as possible, and we were fearful then that we would be forced to remove it, as her health was such as to cause greatest anxiety, and there was also chronic sepsis, as mentioned by Dr. Cartledge. When the operation was performed there was some question in my mind as to what the condition really was; at first I thought it might be malignant, as it possessed many of the symptoms of malignancy, retraction of the nipple, etc., and with the usual signs of inflammation about. On examination of the breast I remarked to the husband that without the history given me I should have pronounced it malignant, just from its condition. I treated her for perhaps a month, but there was no improvement, and another nodule was forming. She suggested one day that the breast be enucleated. I had already discussed the matter with some of my surgical friends, and told her I had been discussing the matter myself; also told her it was a question upon which physicians were not agreed by any means, but my own opinion was that enucleation was the best plan to pursue, insisting, however, that she get the opinion of another surgeon. She saw another surgeon, giving him the history the same as she had given me, and he gave it as his opinion that the breast should be removed by all means, and for the same reason I had mentioned. I would not take the responsibility of removing a breast for this condition without counsel, and did it after consulting with a number of gentlemen, who agreed perfectly in the operative procedure.

I removed it, first, because the breast was functionally destroyed from the ravages of multiple abscess; second, the low state of health, and because these breasts, we know, are prone to take on malignancy. It is the first breast I have amputated for a condition of this kind, but am more satisfied than ever as to the advisability of the procedure, and the pathologist reports that the breast was destroyed and the condition was but a suppurating fibroma.

SUPRAPUBIC CYSTOTOMY FOR FOREIGN BODY IN THE BLADDER.

By I. N. BLOOM, A. B., M. D., LOUISVILLE, KY.,

Clinical Professor of Genito-Urinary Diseases in the University of Louisville, etc.

The following case illustrates what some people will resort to in an endeavor to increase venereal excitement. In July, 1895, there appeared at my clinic at the University of Louisville, a German, Mr. X—, aged sixty-four years, who was suffering from a slight bladder neurosis. His urine upon examination showed nothing abnormal, and the symptom from which he most complained was frequent micturition, especially at night. A careful examination of the prostate showed slight enlargement, which was non-lobulated, and the sound treatment was advocated and practiced. About the middle of October the patient stated before the class that he had to get up at five o'clock in the morning to urinate, going to bed normally at ten.

The patient was dismissed and I did not see him again until March 13, 1896; he then gave the history that, having a wife fourteen years younger than himself, he had felt that he should have sexual intercourse more frequently than his natural inclination led him to. About the time he left my care he was advised by a friend to use a little ivory instrument (which I will show you in a moment) to strengthen his erections. He had used this habitually from the middle of October until the time I saw him, March 13th. A week before I saw him he had had sexual intercourse with his wife, and in the progress of that intercourse the instrument had slipped into his bladder and had remained there, causing certain symptoms; the day before the operation he told me that he had urinated twenty-five times by actual count, and ten times by actual count during the night. The man was physically in good condition, and on Friday morning a week ago, and one week after it had slipped into the bladder, I put him on the

operating table before the class and did a suprapubic cystotomy and extracted the short ivory catheter. I did the operation by making an incision in the median line, about two inches in length, and afterward tamponed with iodoform gauze. After the operation a thing happened that I have never had before in the twelve suprapubic operations that I have performed, that is, the patient Friday afternoon urinated through his penis. That is, urination Friday evening and Saturday with the tampon in place, was largely through his penis, perhaps one-half; at any rate it was not in drops but in drachms that it took place. On Sunday I removed the gauze, when the drainage was principally through the belly wound, as was also the case on Monday, but urination was partly through his penis. It went on in that way until now. I saw him this morning, and there is not more than one drop in ten minutes passing through the belly wound. The instrument was not broken; it is a piece of ivory three and a half inches in length, with a diameter corresponding to Charrière No. 20; he had been advised by his friend to use this to strengthen erection mechanically. There are no incrustations on it, although it had remained in the bladder a week. Not an unpleasant symptom developed until last night, when the man, who is a well-to-do German, indulged a fondness for canned peaches, and ate a very large quantity of them, and during my temporary illness my assistant neglected to purge him, resulting in quite a severe attack of indigestion. He has recovered from this, however, and his temperature to-night is normal. The case is of interest both psychologically and, I think, surgically.

REMARKS.

Dr. Carl Weidner: I would like to offer an explanation as to why the urine began to pass through the normal channel so soon after the operation in this case. As the doctor in the case simply had to deal with a foreign body which had remained comparatively a short time in the bladder, not having caused any chronic changes in the mucous membrane resulting in more or less obstruction to the normal channel and in the bladder itself, should we not expect the urine to seek the normal channel more rapidly than in the more chronic form of cystitis with which the surgeon has to deal? Reasoning from analogy I should think that the more recent the injury to any organ the more rapidly it would establish proper function after relief of the trouble.

In this connection I remember reading in a French medical journal some years ago an article, which I translated at the time, where a man inserted a pig's tail into the urethra for the purpose of masturbation. This slipped into the bladder and was removed by operation. It simply shows what the human race is capable of doing to excite the sexual functions.

Dr. W. C. Dugan: Explanation of the urine passing through the normal channel in Dr. Bloom's case I think is plain. We find that shortly after an operation of this kind the lips of the wound come together and the exudation of lymph holds them together temporarily, and naturally urine passes through the normal channel. If suppuration is set up later, then this union is broken down mechanically and the urine will pass from above.

Dr. I. N. Bloom: I would like to ask Dr. Dugan whether it is usual for the urine to pass through the normal channel so quickly. I thought perhaps the gauze in the bladder for twenty-four hours after the operation might have held the incised portions more closely together than they would have been without the gauze, and in this way allowed the urine to pass through the normal channel.

Dr. W. C. Dugan: It is not at all uncommon for urine to pass through the natural channel soon after an operation of this kind, for the reason that I have already given.

Dr. T. C. Evans: I wish Dr. Bloom would tell us if it is a common occurrence for persons to use an instrument such as he has shown us for the purpose he has stated?

Dr. I. N. Bloom: There is very little to be said on the subject, except that numerous instances are mentioned in medical works where mechanical contrivances have been used by sexual perverts to excite the sexual feelings. I believe that all people who resort to means of this kind are sexual perverts. You probably all remember the case

where Nelaton had to operate to remove a beer glass from the anus of a patient. We know that these cases do occur, but they are more common in the female organs, not only in the vagina, but in the bladder; it is not uncommon to find hairpins, button hooks, etc., in the female bladder. How they get there, whether the result of masturbation or perverted sexual tendencies we cannot tell. As far as this individual case is concerned, there is nothing remarkable about it except that it occurred in a man sixty-four years of age. In young men, who are much more frequently masturbators, we might expect to encounter such a case more often.

The case I have reported is somewhat exceptional, however, in America, where we have reason to believe that the morals are infinitely better than those of older countries.

TRANSLATIONS, GLEANINGS, Etc.

TORTUOSITY OF THE TEMPORAL ARTERY AND ITS CLINICAL SIGNIFICANCE.

BY MÉNÉLAS SAKORRAPHOS, M. D., OF ATHENS.

Translated from "*Progrès Médical*," by J. A. Carmichael, M. D.

In a large majority of cases, and from an anatomopathological point of view, chronic diseases of the order dystrophic, manifest themselves by arterial sclerosis. General arterio-sclerosis is the great enemy of advanced life. All chronic lesions commence by endo-periarteritis, and by degrees terminate in sclerosis of an organ, if it is localized, or of the entire organism if it becomes general. It is easy to comprehend that under such circumstances the whole organism becomes subjected to the destructive influence of this general lesion, which interferes with nutrition, because the elasticity and permeability of the vascular system constitute the primary conditions of physiological nutrition. These conditions wanting or defective, perfect and complete nutrition becomes impossible.

Hence, we see arterio-sclerotic subjects become prematurely old, the vitality of their tissues is feeble, and they resist exterior influences just like the organism of the really old. An external cause that would signify nothing in the healthy is to them serious enough to endanger life. Dystrophic maladies, especially those characterized by general arterio-sclerosis, are hereditary. Heredity is transmitted in a progressive form; that is to say, that the descendants present clinical symptoms much more pronounced than those manifested by their predecessors, and this progress tends constantly to the end of the malady, to terminate finally in the extinction of a generation. It is in the arterio-sclerotic descendants particularly, that the clinical sign of the tortuosity of the temporal artery has been observed, a sign of great clinical value; in effect it indicates the malignant form of arterio-sclerosis. Prof. Dieulafoy has described this sign in the course of interstitial nephritis, which is but one of the more frequent localizations of general arterio-sclerosis. No one, as far as we know, has drawn attention to this subject.

Basing our opinions always upon personal observations, we have been able to determine that the tortuosity of the temporal artery usually manifests itself between the ages of twenty-five and thirty years in hereditary arterio-sclerosis, in whom it is easy to see the existence of ancestral arterio-sclerosis. There also exists between these individuals a striking resemblance in certain external characteristics. All are meagre and thin in body, of quick and irritable temper, and an inaptitude to pursue for a length of time any given subject, however interesting it may be, because of the fatigue experienced by the slightest application or attention. In fine, they present all the special characters that clearly indicate abnormal functional operation of the nervous system. On the appearance, or a little after, of the temporal sign, they complain of palpitations and lassitude, and experience slight dyspnoea. On

auscultation, a clacking or creaking of the second sound is observed at the base of the heart. Visual obscurity occurs, with or without apparent cause, and during the night they require to urinate frequently.

Frequent examinations of the urine give negative results. The appearance of the temporal sign is followed by other slight symptoms, transient, but co-existing with it. As physician at a hospital for the aged, we have had opportunities of observing more than a hundred patients, and very rarely have we seen this sign as pronounced as in the descendants of arterio-sclerotics. We make this remark because all authors are not in accord as to the causes that produce arterio-sclerosis. Most of them accept the idea that the struggle for life, imperfect physiological function, humid and unhealthy locality, alcoholism, and especially the abuse of liquor of bad quality, are powerful causes in creating arterio-sclerosis. Others deny some of these causes, particularly alcoholism.

Lancereaux: Although there are differences of opinion respecting them, there is no denial of heredity.

We think that general arterio-sclerosis may proceed from these causes, is compatible with longevity, and is only a mild form of arterio-sclerosis; hence we see so many old arterio-sclerotics live a long time. It is not so with their descendants. In them the progress is rapid, the temporal sign manifests itself quickly, and those who are attacked die at an early age. It remains to be demonstrated if the descendants of the non-hereditary arterio-sclerotics exhibit this sign. This we cannot absolutely affirm at present. The flexuosity of the temporal artery is followed by sclerosis of the cerebral or renal or coronary arteries, and it is by a lesion of these three organs that hereditary arterio-sclerotics generally die. Two of our patients were attacked by overwhelming apoplexy—cerebral hemorrhage—and one by syncope—sclerous myocarditis. It should be added that the parents of the two first died of cerebral hemorrhage, but at an advanced age—about sixty years. Of the two last, one reached forty-five and the other fifty, thus confirming what was previously said about the progress of general arterio-sclerosis. We communicate these reflections, the result of personal observations, in order to draw the attention of the profession to the temporal sign, which we consider of the highest importance.

RETROSPECTIVE THERAPEUTICS.

By Alfred K. Hills, M.D., Fellow of the Academy of Medicine, New York.

Hot Water in Gynecology.—In *La Semaine Médicale*, Vol. III., No. 47, Dr. Paul Reclus is quoted as an ardent advocate of the methodical use of hot water in surgery, attaching much importance to the degree of temperature in relation to the various diseased conditions. We subjoin that portion of the lecture which relates to the use of hot water in gynecology, and give the method which Dr. Reclus employs in treatment:

"The time is now past when apparently well-informed surgeons proposed and practiced extirpation of the adnexa for the relief of pain on pressure in the vaginal cul-de-sac, ill-defined infiltration of the region, menstrual troubles and a sensation of weight in the lumbar region. More than this is now required to justify laparotomy. Never operate in the presence of these affections of the true pelvis before having recourse to medical treatment in which hot-water enemata constitute the principal factor. The results obtained in this way are so satisfactory that at the Pitié Hospital they only operate on one out of three patients admitted for undoubted oöphoro-salpingitis.

"Following the example of many of my colleagues, I begin by disinfecting the vagina and uterus, followed by dilatation of the cervix and prolonged drainage, packing and, if necessary, curetting the uterine cavity, the walls of which I treat repeatedly with topical applications, such as tincture of iodine, creosote, and graduated solutions of zinc chloride. Though it is not unusual to employ hot water, this water is not, as a rule, hot enough, the temperature ordinarily being from 40° to 45° C., whereas I

use water of at least 50°, and still more frequently 55° C. The principal difference, however, is that while other surgeons have recourse to vaginal irrigations, I employ enemata.

"Not that I would dispense with vaginal injections, were it only for cleansing the vagina, a result which is by no means to be despised; but it must be remembered that this is about all the benefit to be derived from such injections, which have little, if any, modifying effect on congestion of the uterus and its appendages. Their use rests on an anatomical error, for, if it is desired to reach the uterus, ovaries, and oviducts, the operations must be carried out through the rectum. An enema results in the accumulation of hot water in the ampulla of the rectum, into which the internal genital organs project. Enemata must, therefore, be resorted to under these conditions.

"It is better to take them in the morning, about half an hour before rising. The irrigator, filled with water at a minimum temperature of 55° C., is placed on the night-table, the cannular is introduced above the sphincter, and the tap is slowly opened, so that only a small quantity of liquid passes into the intestine, the slowness of the process preventing contraction of the muscular coat. In this manner, therefore, a much larger quantity of water can be introduced than if a strong jet were turned on at once. Should, nevertheless, a desire to defecate manifest itself, the water is shut off until this desire has passed, after which the tap is again slowly opened. The patient should retain the enema for half an hour, if possible. Then she is allowed to evacuate the liquid, repeating the operation the next morning.

"By this antiseptic treatment, drainage of uterus and hot enemata I have succeeded in relieving, and even curing, a large number of cases of peri-metro-salpingitis. The infiltration of the cul-de-sac disappears, the peristaltic movements of the intestine break down the adhesions, and instead of large masses filling up the true pelvis, the exudations and purulent collections are absorbed, the vaginal cul-de-sac becomes supple, the uterus movable, and the region in question resumes almost its normal condition, especially after judicious and moderate application of massage. I have on many occasions seen the tumor entirely disappear, and this result was in a large measure attributable to the use of hot water, which is of the greatest value in surgery."

The Treatment of Erysipelas With Applications of Vaseline.—Koster (*Sem. Med.*, 1896, No. 9) has made a comparative study of the results of treatment in a large number of cases of erysipelas, in which various methods were employed, including painting with tincture of iodine, spraying with mercuric chloride, and applications of ichthylol and of simple vaseline, and found that the results with the last were quite as good as those with any other measure, as regards mortality, complications and extension. The applications of vaseline were made twice daily, and covered by gauze with a certain amount of compression.

Stibium Arsenicosum in Chronic Bronchitis.—Stibium arsenicosum, the *Medical Century* says, is an excellent remedy in chronic bronchitis. It is reported to have cured a case of six years' duration, where there was great emaciation; pulse, 115; temperature, 103; and severe night sweats and incessant cough added to the seriousness of the condition. Its special characteristics are great rattling in the chest, restlessness, and scant expectoration.

The Balsam of Peru Treatment of Scabies.—Julien and Descouleurs call attention to the advantages of the above non-sulphurous treatment of itch, their conclusions being based upon 300 cases observed both in private and in hospital practice (*Charlotte Med. Jour.*). It is known that the acarus placed on a watch glass and exposed to sulphur fumes may remain alive for sixteen hours, and that it generally survives over an hour's immersion in flour of sulphur and Helmerich's ointment. Dr. Descouleurs placed six in contact with balsam of Peru and found that in ten minutes two were dead; in twenty minutes three more had succumbed, and the last of the six died soon after. This experiment confirms the conclusions of Burchardt, who, moreover, discovered that the balsam kills the eggs

as well. It is probable that the volatile oil, cinnaem, that according to Fremy is the essential constituent of the balsam, kills the acarus at a distance through asphyxia, and not through a corrosive action or by disruption, for Hebra has shown that the parasite can live for a week in water at 30° C., and Dr. Descouleurs has witnessed survival for three and a half hours in glycerine. The application of the method is simplicity itself. No soap is required, the balsam being painted on the surface, and then gently rubbed into the whole body with the hand. The remedy being volatile, penetrates readily into the "runs" without involving the necessity of opening these up. The patient remains thus all night, a warm bath being taken in the morning, when the cure is said to be complete. A repetition of the process, if necessary, produces an irritation of the skin. Inveterate cases, that had resisted the classical and rather severe *frotte* at the St. Louis Hospital were all invariably cured by this method, which would seem to be specially indicated when scabies is complicated with impetigo, eczema, ecchyma, and boils, and also in cardiac cases, pregnant women, and feeble subjects with delicate teguments, *e. g.*, babies. The rather agreeable odor of the balsam tells greatly in its favor, especially in private practice.

Asafetida in Obstetrics.—Warman (*Brit. Med. Jour.*) finds that this drug is a most valuable therapeutic agent in midwifery. It is a direct sedative to the pregnant uterus, and exercises no evil influence over the general system. It is of particular value when abortion is imminent, as it controls uterine irritability. On the other hand, it is of no use as a prophylactic agent in such cases, and must not be relied upon when the abortion has proceeded so far as to require manual interference. In habitual constipation and in nervous conditions during pregnancy it is highly beneficial.

Serum Therapy for Cobra Bite.—The Pasteur Institute has succeeded in preparing a serum which is found to be a perfect antidote for the dreaded cobra bite. A supply of this serum recently sent to Agra proved a successful remedy against the cobra bite in both men and beasts.

Horse's Serum as a General Tonic.—Lacruz (*Arch. de Gin. Ostet. y Pediatría*) has tried the effect of serum from a healthy horse on several children in his wards. Doses of from 3 to 5 c. m. were injected daily, and repeated every day for three or four weeks. The serum seems to act as a most powerful tonic. The red corpuscles increase in number, weight is gained, and the child visibly becomes stronger. There is no onward secondary effect except slight rise of temperature and some acceleration of the pulse; there is no erythema and no albumen. A trifling epithelial deposit seen in the urine indicates slight irritation of the kidney, and the urine becomes more acid. These phenomena, however, are merely transient. The good effects of the injections are quickly manifested, cases of athrepsia in particular are speedily benefited, and the cure is maintained. Sixteen cases of chorea treated in the manner described were cured in a period of fifteen days on the average.

A Case of Erythematous Lupus Cured by Injections of Lamb Serum.—At the séance of January 9, 1896, of the Société Française de Dermatologie et de Syphiligraphie (*Ann. de Dermatol. et de Syphilig.*, No. 1, 1896), Legrain reported a case of erythematous lupus of the face, cured by injections of serum obtained from the lamb. The disease had been treated for more than a year with the local applications usually employed in such cases, without success. Potassium iodide had been given internally without effect, and linear scarifications, while producing a slight improvement, had not been of more than transient benefit. Two months after cessation of all treatment two injections of lamb serum, of 10 cubic centimeters each, were given at intervals of five days. Three days after the first injection the patches were paler, and ten days after the second they had disappeared without leaving any trace.

Theobromine in Renal and Cardiac Disease.—Prof. Huchard, of Paris (*Bull. Gen. de Ther.*), gave the details of fifteen cases under his care at the Hôpital Necker, in

which he used this drug, and stated that numerous observations warranted him in asserting that theobromine is one of the best and most reliable and constant of diuretics in the treatment of anasarca or oedema, associated with affections of the heart or kidneys. It is a direct diuretic, acting at once on the renal epithelium, exciting and increasing the function of the latter without altering it. Theobromine is especially effective in cases in which there is both cardiac and renal sclerosis, in valvular disease complicated with albuminuria, or at the stage of asystole, and in interstitial or parenchymatous nephritis. In order to prolong the effect, it is advisable, especially in cardiac disease, to give theobromine for six days, and to follow up the last dose in a few days by 0.0005 to 0.001 gramme (1-130 to 1-64 grain) of digitaline for one day. The diuresis caused by the theobromine is rapid, occurring on the first day of its administration and persisting from two to four days after the last dose. There are no cumulative effects, more than 3 grammes (46 grains) producing, in certain persons, headache, nausea and vomiting, but rarely cerebral excitement. An average dose is from 2 to 3 grammes (31 to 46 grains) in wafers containing 0.50 gramme ($7\frac{1}{2}$ grains). Larger doses, 4 to 5 grammes (1 to $1\frac{1}{4}$ drachms), are without danger and are often employed. In infectious diseases in which the elimination of urine is of great importance, as well as in severe forms of hepatic disease in which the hepatic cells are involved, milk diet combined with theobromine, in daily doses of 2 to 3 grammes (31 to 46 grains), produces excellent results by insuring and increasing diuresis.

The Treatment of Sciatica by Compression.—The *Bulletin Medical de Paris* states that M. Negro has reported 113 cases of obstinate sciatica in which this new treatment has resulted in recovery. The procedure is as follows: The patient lies on his face with his legs extended and resting easily one against the other. The most painful spot is selected, the region where the nerve proceeds from the sciatic opening. On its trunk both thumbs are applied, and it is compressed with the greatest possible force. At the same time slight lateral movements are made without changing the point of pressure or moderating its intensity. This takes from fifteen to twenty seconds, and is followed by an interval of twenty minutes' rest, when the procedure is repeated. After a second application, which is much less painful than the first, the patient is able to walk, and for several hours, or even a day, he may be free from pain. In order to obtain complete recovery, says the author, this procedure should be practiced about six times a day every two days until the definite suppression of the neuralgia.

Iodine in the Treatment of Granulated Lids.—According to the London *Lancet*, the eminent Russian, Dr. Neznamoff's, custom in treating granulated lids is to paint the mucous membrane of the lids with a solution of pure iodine mixed with liquid vaseline (*oleum petrolei*) twice a day. In chronic cases he uses vaseline containing from a half to 1 per cent. of iodine. In about four days improvement begins, and in about twenty a cure is generally effected.

Chimaphila in Bladder Difficulties.—According to the *Electric Medical Journal*, the really valuable property of *chimaphila umb.* (Prince's pine) is its kindly action in catarrhal states of the bladder. The greater the catarrhal character of the difficulty the better it will act. If pus and blood be voided its efficacy is all the more pronounced. It is not the remedy for acute and inflammatory troubles, but for the chronic and lingering disorders giving rise to excessive voidings of mucus or muco-pus, offensive or non-offensive in character.

In all cases the dose should not be too small. If the infusion be used, and this is a very effective method of administration, a wineglassful of the preparation ($\frac{3}{4}$ ij. to water Oj.) should be given every three or four hours; of the specific medicine give 10 or 15 drops every four hours.

Ferratin, Iron Tonic and Food.—(*Chicago Med. Recorder*, January, 1896.) J. S. Perekhan: The author reviews the literature on ferratin, quoting Schmiedeberg, Germain Sec, Dujardin-Beaumetz, Marfori, Jaquet, Fackler, Einhorn, and others, and then cites a case of anæmia in his

own practice "because the improvement under the use of ferratin was so striking as to merit special mention." Patient, a girl of seventeen, became anæmic after an attack of grippe, lost her appetite, etc.; condition on November 15th as follows: Face pale, of waxy color, lips and conjunctiva almost white, headaches, insomnia, constipation, shortness of breath, bad appetite, etc. Half gramme doses three times daily, with hygienic regulations, caused improvement after first week, and gradually her appetite returned, headaches and insomnia disappeared, red color was restored to lips and face, and within five weeks the blood corpuscle count showed an increase from 2,100,000 to 4,150,000 per ccm. Author concludes that "ferratin can be safely recommended as a hamatinic remedy, with suitable diet, hygiene and exercise not to be neglected."

The Famous Hunyadi Janos mineral water, on account of its reliability, mildness and pleasant taste, has become one of the most popular saline aperients.

RETROSPECTIVE DIETETICS.

Eucasin.—This substance is described by Salkowski as a casein-ammonium compound. It comes in the form of a fine powder, entirely soluble in warm water, or yielding at most only slightly cloudy solution. It is said to be made by passing ammonia over casein, and, according to Salkowski's researches, is a much better nutritive than somatose, since the latter, it is maintained, is not sufficiently absorbed, and in the majority of cases causes liquid evacuations. Eucasin, on the contrary, is held to be better absorbed by the intestines. The observed loss in N was about 14 per cent., against 35 per cent. in somatose. While with other dietetics rich in albumen it is considered necessary to give nuclein also, this is not the case with eucasin. Besides, the nucleins being the source of uric acid, while the albuminous nutritives stimulate its production, their use would be contra-indicated in rheumatic and kindred affections. Eucasin, being free from albumen, can, therefore, be used as a substitute, it is argued, and may be added to soups, bouillons, cocoa, etc. With wine or beer, however, it is incompatible.

Levantin, a Coffee Substitute.—Under the name of "Levantin," a new substitute for coffee has been introduced, and lauded as being non-irritant and capable of entirely replacing it. As described by Brunotte (*Zeitsch. f. Nahrungsmit.-unters., Hyg. u. Waarenk.*, x., p. 142), it consists of two elements—a granular seed-albumen and the seed-covers. Further investigation induced the belief that levantin is the roasted seeds of *coripha cerifera*, or *copernica cerifera*, a species of palm, which had already been described as a coffee substitute by Planchon and Collin. An oil is obtained from the seeds, which are then roasted. The whole roasted bean is not marketable, so it is ground and then sold under the name of levantin.

The strong resemblance which the ground, roasted beans bear to coffee will, it is feared, result in the wholesale adulteration of the latter. The palm seeds serve in their native place as a popular cure-all, as well as a substitute for coffee, and are known there by the name of yunka.

The Use and Abuse of Condiments.—This subject is discussed in the *Dietetic and Hygienic Gazette* for May, by Dr. J. Hobart Egbert, who points out the practical relations which different condiments bear to health and disease, as follows:

Salt, besides being a food, is one of the most useful of condiments, for it not only increases the palatability of food, but materially promotes the digestion of albuminous substances, and aids the absorption of the scantily soluble fats. Patients who raise blood, either from the stomach or lungs, should not neglect salt from their diet, while those suffering from dyspepsia and chronic gastric catarrh may find relief in the more liberal salting of their food.

Next in order of consumption comes black pepper, the propriety of the liberal and constant use of which with food may justly be questioned. It is a typical stimulating aromatic condiment. That pepper is not harmless is shown by the fact that when taken in excess it induces intestinal inflammation, burning pain in the epigastric region, great

thirst, and sometimes vomiting. In several cases which have been recorded, the immoderate use of pepper has even been followed by rigors, convulsions and delirium. The general table use of pepper should be lessened, and among the plethoric even entirely discontinued. In paralyses which require an active stimulant, in weakened and reduced conditions of the system resulting from chronic debilitating affections, for those of asthenic and leucopneumatic temperament, and in atonic dyspepsia, black pepper, in moderate quantities, is a fitting condiment.

Cayenne, or red pepper, is a condiment of stimulating and irritating properties, and is possessed of curative virtues. We recommend its use, as a condiment, to those disposed to malarial attacks; to weakly and overtaxed subjects suffering from atonic forms of dyspepsia; as a curative agent in chronic diarrhoea, and preventive of cholera; and as a general substitute for alcoholic stimulants for those addicted to their use.

Mustard is in general use as a condiment; nevertheless it would doubtless be better to confine its use to the methods of curative dietetics. In certain forms of indigestion with constipation, torpid liver, and loss of appetite, good mustard used as a condiment may prove of value, but its general table use should be discouraged. Owing to a mild expectorant action when taken in small quantities, mustard with food has been recommended in chronic catarrhal bronchitis and allied disorders of the lungs.

Vinegar is a condiment of value, as it not only stimulates digestion, but also exerts a direct solvent action upon certain ingredients of our food. It readily transforms the gluten and fibrin of albuminous substances into a loose gelatinous mass, and is capable of transforming cellulose and starch into sugar. Hence, we are ready to admit that, in the majority of instances, vinegar is an allowable condiment, providing a fairly pure cider or wine vinegar, entirely free from sulphuric acid, is employed. Theoretically, at least, vinegar should not be added to peas, beans and lentils, and to soups made of the same, as it not only will not dissolve the legumin which they contain, but renders its solution more difficult. With the exception of legumin, albuminous substances are dissolved by vinegar, and this solvent effect is carried even as far as the blood. Owing to the solution of constituents of the blood, and the resulting increased liquefaction, vinegar has been used to reduce corpulence, which it may indeed effect though its use for this purpose can hardly be recommended.

Water cress, radish, parsley, onions, leeks, and similar vegetables which are served fresh, are proper appetizers, also breaking the monotony of a limited diet and stimulating digestive processes. They undoubtedly constitute the best variety of condiments—or accessory food products—for general use. Olives, pickles, chow-chow and similar spiced and pickled products are to be regarded as harmful or beneficial, according to the kind and amount of condiments they represent. Grated horse-radish may be mentioned as one of the best condiments to assist in the digestion of heavy meats, as pork, etc. The vinegar which is added to horse-radish increases its digestive qualities. Ketchup, meat sauces, and dressings are allowable when the appetite requires encouraging and the body needs stimulating, but their causeless and continual use is decidedly wrong. Apoplexy and even insanity are perhaps engendered by the unwarranted use of heating, stimulating condiments.

In conclusion, we would add that the use of condiments generally, when not employed for a definite purpose, should be discouraged. During convalescence from acute illness, in conditions of temporary debility of the digestive functions, during the decline of advanced old age, and for the relief of definite disorders, as already pointed out, good results may follow the judicious use of condiments. Thus, by their proper application to abnormal conditions, the quality of the blood may be improved, the body may be invigorated and strengthened and supplied with better digested and more easily assimilated food; while, on the other hand, their irrational and immoderate use weakens both mind and body, predisposes to disease, renders the passions more ungovernable, and shortens life. It is not necessary that all should forego the use of condiments

with their food, but it will be well for most people to exercise due judgment in their selection, as well as to limit the quantity consumed, ever remembering that "an excess of stimulants is much more dangerous than a superabundance of nutriment."

Sponge as a Bed for an Artificial Eye.

Dr. E. Oliver Belt, of Washington, D. C. (*Medical News*, June 27, 1896,) proposes the use of the sponge after enucleation of an eye-ball, as a bed for an artificial eye. He says: "A globe of fine, soft sponge about three-fourths the size of the eye-ball (previously sterilized in 5 per cent. formalin solution and rinsed in the salt solution) is then inserted into the socket or capsule of tenon. The conjunctiva is brought together and sewed with rat-tail sutures. The eye-lids are then closed with compress and bandage. In a few weeks the sponge is filled with new tissue, which in time become firm, solid flesh, making a full orbit and a firm support for the artificial eye. The sponge fibers are apparently absorbed." In the five cases operated, the result is said to have been fairly good.

WANTED, A NEW AMERICAN HOTEL IN PARIS.

There appears to be a splendid opening in Paris for a first-class hotel on the American principle. The only hotel we know of as being really first-class and with suits of apartments on the American principle, is the Hotel Windsor, but which is generally full, and, being most comfortable, is extremely popular. There are two small American hotels of the boarding house type, we are told, besides, but the accommodation is limited, and they are consequently always full.

Now, any capitalist or syndicate who would establish a large first rate hotel, with American home comforts and a good English speaking service, would quickly make an enormous fortune, particularly as the exhibition of 1900 is not far off.

French hotels leave much to be desired, and many of the first-class ones are not all that American ladies, traveling alone, may desire. What is wanted is a first-class American hotel, with good cooking and perfect sanitary arrangements, bath rooms, etc.

Any one seriously interested in this matter we shall be happy to place in communication with our European medical correspondent in Paris.

WHEN AND HOW TO BATHE.

Dr. Cyrus Edson, ex-President of the New York Board of Health, writes concerning bathing, in June *Ladies' Home Journal*: "A cold douche or any form of shower bath should not be used when a person is tired or exhausted from any cause, as the reaction, on which the shock depends for its beneficial effect, does not follow effectually when the system is tired.

"The result of the shower in such a case is apt to be internal congestion, which may be disastrous. It does not follow, however, that a perspiring person should not bathe until cooled off. As a matter of fact, if the person is not exhausted, the fact that the pores are open is rather advantageous than otherwise, as the reaction is enhanced and will probably follow more energetically. A bath should never be taken within two hours of a hearty meal. The first effect of immersion in warm or in cold water is to seriously derange the digestive process if that is progressing at the time, and by a physiological effect that naturally follows, to unbalance or derange the whole nervous system. The result of this is extremely dangerous to the bather. There are numerous instances of severe illness and even of death, caused by bathing while the stomach was full."

Thyroidine given in 5-grain doses three times a day is said to be a remedy for obesity, producing an increased excretion of nitrogenous matter.

MISCELLANY.

—False teeth are now made from paper, and are said to last a lifetime.

—Gonorrhœal epididymitis is relieved by sulfo-ichthyo-late of ammonia, 1-10, with glycerine.

—Never neglect to examine the lungs in all cases of ischio-rectal disease and fistula in ano.

—Dr. P. Playfair has compromised his case with Mrs. Kitson by paying \$50,000, including costs.

—San Francisco has a physician ninety-four years of age, who has been in active practice sixty-four years.

—Dr. J. S. Billings has received the honorary degree of doctor of medicine from the University of Budapest.

—*La Semaine Médicale* announces two cases of mania cured at Montpellier by injections of serum from a recovered maniac.

—It is said that one-tenth grain of apomorphine, given hypodermically, will break up and thereafter prevent any attack of hysterics.

—Burns: First relieve irritation with carron oil (linseed oil and lime water); then dress with aristol ointment, over which place cotton batting and bandage.

—Golowkow announces in *Wratsch*, No. 7, that he has demonstrated beyond a doubt that the cholera vibrio can penetrate the shell and enter hen's eggs.

—ETHER COLLAPSE—One part of camphor to ten parts of olive oil used hypodermically is effective in ether collapse. One grain of camphor may be given.

—The *Druggists' Circular* says that oil of eucalyptus applied with a camel's hair brush over the surface of chilblains or soreness of the feet gives prompt relief.

—WHAT NEXT?—Paderewski is said to have discovered strange and beautiful melodies in the music of the Chinese, showing an advanced state of musical development.

—Dr. Yung-Mung-Fueng, a graduate of the Royal Medical College of Canton, was recently registered as a practising physician in St. Louis, and will open an office there.

—It is said that the New Mexico Territorial Board of Health recently recommended the use of the patent medicine almanacs as receptacles for the sputum of consumptives.

—A high authority asserts that a homicide takes place every two hours in Italy, day and night, ten times as many as there are in France, and thirty-five times the number in Denmark.

—It is stated that the prime cause of the recent fatal illness of Archduke Karl Ludwig of Austria, brother of the Emperor, was found in the water of the River Jordan, which he drank as a matter of religious devotion.

—The late Dr. John Grieve has bequeathed £8,000 to the University of Glasgow for the endowment of a lectureship, or fellowship, or a scholarship, to which orphans or the sons of widows shall have the preference.

—The Sisters of Mercy have nearly completed their retreat for consumptives in the Adirondacks. Sunrise Mount is the name they have given it. It is 2,000 feet above sea level, and is surrounded by miles of pine forests.

—A French gynecologist has reported the case of a woman who has been in the habit, for more than twenty years, of using a lemon in lieu of a pessary. The effect was quite satisfactory, and no harm appeared to follow the practice.

—If preliminary education be a good thing for students, why not apply it to professors? asks the *Tri-State Med. Journal*, and suggests a State examination of all who

profess to be professors. "There would be a scattering in some quarters."

—A very small amount of alkali is sufficient to keep metal from rusting, so that if steel, iron, nickel or copper instruments are dipped in five grammes alcohol containing one or two grammes of either borate, carbonate, bicarbonate or benzoate of soda, they will not tarnish.

—A Swedish engineer has invented a butter-making machine which will transform sterilized milk into butter in one minute. The product is absolutely sterile. Another advantage is that the milk can be converted into butter directly after being obtained from the cow.

—Rabies is almost unknown in Norway, Denmark and Sweden, where a quarantine is established to keep out all but valuable specimens of dogs. English investigation shows that the disease is specially prevalent among dogs that are kept as domestic companions or pets.

—It has been recently found that most antiseptic ointments are of very slight value, the peculiar qualities of a disinfecting substance being nullified by the action of the oily material with which it is usually incorporated. Lanolin is one of the least objectionable of these substances.

—The Ohio Wesleyan University, located at Delaware, O., is to have a medical department, which will be known as the Cleveland College of Physicians and Surgeons, having its home in Cleveland. A new laboratory will be erected at the cost of \$50,000. Dr. Charles B. Parker is the new dean.

—For a boil on the end of the nose, where an ordinary poultice would be of no avail, Dr. Carl Seiler recommends a raw cranberry, crushed and laid over the part, and kept in place with a dab of stiff boiled starch. He finds it to relieve the excruciating pain in a short time, and cure the trouble in twenty-four hours.

—In a Chicago court, recently, Dr. Jno. A. Wesener sought to recover a fee of \$150 for professional services in the treatment of the liquor habit. The contract provided for the complete cure of the patient, and the litigant's word that he had not been cured was taken as sufficient evidence to defeat the physician's suit, against whom a verdict was rendered.

—In 1888, W. E. Smith invented the drop-frame bicycle and built one for his wife. Mrs. Smith's first wheel weighed sixty pounds. She herself tipped the scales at eighty. Since then she gained forty pounds, and her wheel has lost exactly the same amount, which (the *Medical News* thinks), says a great deal for the evolution of both women and bicycles.

—More than 155,000 children under one year of age die annually in Paris, the greater number of them owing to neglect on the part of their mothers. The proportion of illegitimate births, which at the beginning of the century was 4 or 5 per cent. of all births, is now nearly 9 per cent. for France, and 28 per cent. for Paris. Among the children of Paris wet-nursed, the average mortality is 77 per cent.

—Dr. Louis McLane Tiffany, for many years a prominent teacher of surgery in Baltimore, says that he never saw a case of hydrophobia in an extensive surgical practice of twenty years. He further declares that he never saw a surgeon who was certain that he had seen a genuine case. There is no doubt that most reported cases are only instances of tetanus when following soon after the reception of the injury, or of meningitis or other cord lesion when occurring many months after the dog bite.

—In a paper recently read before the section of public health of the Academy of Medicine, Dr. R. G. Freeman concludes that the milk delivered in this city, and presumably all cities, contains enormous quantities of bacteria, due to defective dairy methods and slow delivery of milk to customers; that much sickness has been produced by the presence in milk of germs of typhoid fever, diphtheria, scarlet fever and tuberculosis, and that proper inspection and legislation may remedy this condition of affairs.